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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1992

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ONE HUNDRED SECOND CONGRESS

FIRST SESSION

ON

H.R. 2521

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENT OF DEFENSE FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1992, AND FOR OTHER PURPOSES

PART 1 (Pages 1–429)

Department of the Air Force
Department of the Army
Department of the Navy
Global Overview

Printed for the use of the Committee on Appropriations

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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1992

MONDAY, MARCH 4, 1991

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:03 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Daniel K. Inouye (chairman) presiding.

Present: Senators Inouye, Cochran, and Domenici.

DEPARTMENT OF DEFENSE

OFFICE OF THE DEPUTY SECRETARY OF DEFENSE

STATEMENT OF DONALD ATWOOD, JR., DEPUTY SECRETARY OF DEFENSE

ACCOMPANIED BY SEAN O'KEEFE, COMPTROLLER, DEPARTMENT OF DEFENSE

OPENING STATEMENT OF SENATOR INOUYE

Senator INOUYE. Today marks the first of the subcommittee's hearings to review the President's defense budget request for fiscal year 1992.

The budget proposed by the President would provide $271.4 billion for the programs under the jurisdiction of this subcommittee. The amount represents a $3.2 billion increase above the level funded in fiscal year 1991. Associated outlays, as estimated by CBO, amount to $278.4 billion, while OMB calculates outlays at $275.6 billion.

On the current congressional rules, the subcommittee has to comply with CBO's scorekeeping. If this difference of $2.8 billion cannot be resolved, Congress will have to make significant adjustment to the President's budget to comply with a lower outlay level.

These disputes over technical reestimates, many of which have occurred during the past decade, limit Congress' ability to provide a meaningful defense budget review. After the historical 5-year budget agreement reached last October, this continuing disagreement makes a mockery of the herculean efforts involved in achieving that goal. I sincerely hope that this matter will be resolved prior to deliberations of the fiscal year 1992 budget resolution.

This morning we are pleased to welcome the Honorable Donald J. Atwood, the Deputy Secretary of Defense, to help us in our review of the defense budget request for fiscal year 1992.

The budget presented for our review is the second in which the Defense Department plans for smaller force structure. The dissolution of the Warsaw Pact, coupled with the political transformation of Eastern Europe, has led to an historical consensus between the administration and the Congress that defense spending can be gradually reduced in the years ahead.

As the subcommittee responsible for recommending the level of annual defense expenditures, we must be certain that the approach taken is well conceived and will meet the national security requirements of the country.

Mr. Secretary, I am certainly aware there is a growing anxiety among members of this subcommittee with the direction taken in this budget.

I, for one, am concerned that following the completion of the Desert Storm operation there may be a shortfall in the funding required to transition away from wartime footing to peacetime operations. My greatest fear is that this will adversely impact the readiness and quality of life of our brave service men and women who have performed so magnificently in the gulf.

I am certain you will agree that we cannot stand by idly and let our soldiers, sailors, airmen, marines, and Coast Guardsmen become victims in a defense budget dispute.

So, too, there is concern with the long-term impact on the country's military strength and the industrial base, as many military weapons programs have terminated with few concrete plans for future systems.

Mr. Secretary, these are just a few of the issues that appear to face the subcommittee as we begin our review of your budget request. We are most thankful that you have come this morning to discuss the President's request with the subcommittee.

Senator Domenici?

STATEMENT OF SENATOR DOMENICI

Senator DOMENICI. Mr. Chairman, I have a very brief statement.

First, let me say to you that I am pleased to be on this subcommittee. I have not had that privilege heretofore and I hope to be able to be of assistance where I can and, obviously, to be supportive of the Defense Department where I can.

Let me just comment, I have not yet, until 4 minutes ago, heard the description of the difference between CBO's estimate of this budget and OMB's estimate of this budget. I just did not find it anywhere.

I watched the two witnesses as you made the statement and while I have not had a chance to ask them yet, I saw that they seemed rather amazed. And so I assume they were unaware, also. And I note without questioning that they are nodding that they were.

But I would suggest that it is very, very difficult for me to understand why we would be bound, regardless of our past precedent, by a CBO estimate of outlays that was in excess of OMB's. I will tell you why.

We are now living at least for 2 years more, 1992 and 1993, with a sequester process that is called a minisequester that governs our compliance with the summit agreement. And my recollection is, one, the numbers are solely within the discretion of OMB. They decide whether you are within the limit or not.

And second, if you underspend, according to OMB, you do not get to spend the money anywhere else. It does not go over to domestic, it goes to the deficit.

It seems to me that unless we clearly had an intention to reduce defense beyond the summit agreement, that we might, if we follow this path of making this budget comply with CBO and then turning right around and find that OMB does it differently, we might be reducing defense for no reason. We would not be complying with the cap, we would be substantially below it, as I understand it.

And I would ask that question. And if the Secretary is not familiar, we could get the OMB Director to tell us that.

Having said that, let me suggest to you, if, and for the record, if the Defense Department feels comfortable with the new budget, consistent with the summit, in the midst of Desert Shield and Desert Storm, that I have the greatest praise for them. I think it must be very difficult to develop this budget in the midst of Desert Storm and Desert Shield.

But I am interested in how they have done that and what they learned from Desert Shield and Desert Storm, if anything.

Thank you very much, Mr. Chairman.

Senator INOUYE. Thank you very much, Senator.

Unfortunately, we have to comply with the Senate rules, which would call for CBO's scorekeeping. The CBO's estimate was released to us last Friday, and coincidentally at that time, the chief scorekeeper for the U.S. Department of Defense just had a child that same morning. So we cannot expect too many numbers to be floating around. I am certain we all appreciate that.

I would like to, on behalf of the subcommittee, wish father Sean the very best.

Mr. Secretary, we are always happy to have you, sir.

Mr. ATWOOD. Thank you, Mr. Chairman.

The distinguished Senator was correct when he said the scorekeeping and the evaluation as given by the CBO has not reached us as yet.

STATEMENT SUMMARIZED

Mr. Chairman, I would like to summarize some of the opening points in the text which I submitted for the record.

Senator INOUYE. Without objection your full statement is made a part of the record.

Mr. ATWOOD. Then I am going to ask Mr. O'Keefe to highlight our actual budget request, some of the details on it.

STRATEGIC OVERVIEW

As you know, during the past 2 years the global security environment has changed rather dramatically. Many of the positive changes were made possible by the West's postwar strategy of containment, deterrence, and support for democracy around the world, while keeping a watchful eye on Soviet military power.

The new U.S. defense strategy sizes our Active and Reserve forces principally against major regional contingencies that could threaten American interests. These threats have not diminished, as recent events in the Middle East have proven.

The defense budget the administration is now presenting charts a path to virtually the smallest U.S. force levels since World War II. We are confident that the capabilities these forces possess are prudently matched to the threat we have been projecting.

Recent times have made us all keenly aware of how unpredictable the world can be. Should the security environment look less promising than we are now projecting, we may need to reassess our current plans for reductions through the mid–1990's.

The major elements of the new U.S. defense strategy are: first, strategic deterrence and defense. Given ongoing Soviet nuclear modernization, America must continue to maintain a diverse mix of survivable and highly capable offensive nuclear forces.

Second, forward presence: Although the changing global environment allows us to reduce our permanent foreign deployments, some U.S. forces must remain deployed overseas in areas of U.S. interest. The forward presence of U.S. forces makes for more credible deterrence. It promotes regional stability. And it provides us the initial capability for crisis response and escalation control.

Third, crisis response: U.S. conventional forces must be able to respond rapidly to short-notice regional crises and contingencies that threaten U.S. interests.

Fourth, force reconstitution: Even though a global war against Soviet and Soviet-backed forces has become far less likely, we must maintain the ability to reconstitute a larger force structure if a resurgence threat of a massive conflict should return.

I want, next, to return to Operation Desert Shield. The 1990 budget summit agreement specified that incremental costs associated with Operation Desert Shield are to be treated as emergency funding requirements, not subject to the defense caps in the agreement. The President's fiscal year 1992 and 1993 defense request and its projected long-term outlays do not reflect these costs, including DOD's eventual requirements as a result of Desert Shield and Desert Storm.

Moreover, some of the program decisions in the 1992 and 1993 request may have to be adjusted in the aftermath of the gulf crisis.

BUDGET HIGHLIGHTS

For fiscal year 1991, the President is requesting a supplemental appropriation, which, when added to contributions from our allies, could cover the Desert Shield/Desert Storm costs that we project for the foreseeable future. We urge timely passage of this supplemental request.

DOD's budget authority levels for 1991 through 1995 are consistent with the discretionary caps for defense. And from last fall's budget summit agreement, these top-line numbers represent a nominal freeze in DOD budget authority at about $278 billion starting in fiscal year 1992.

Total DOD budget authority for 1991 through 1995 will be $131 billion less than that estimated in the President's January 1990 request.

After an 11.3-percent real decline in 1991, DOD budget authority will decline in real terms an average 3 percent per year through fiscal year 1996.

DOD outlays, as a share of America's gross national product, are expected to fall to 3.6 percent in 1996, the lowest level since before World War II and well below the 4.7 percent reached during the defense decline of the 1970's.

The administration's 1992–93 budget request is the result of many months of intense scrutiny. This request includes reductions in U.S. force structure that continue the prudently phased plan for reaching the force targets established for the new strategy and threat projections.

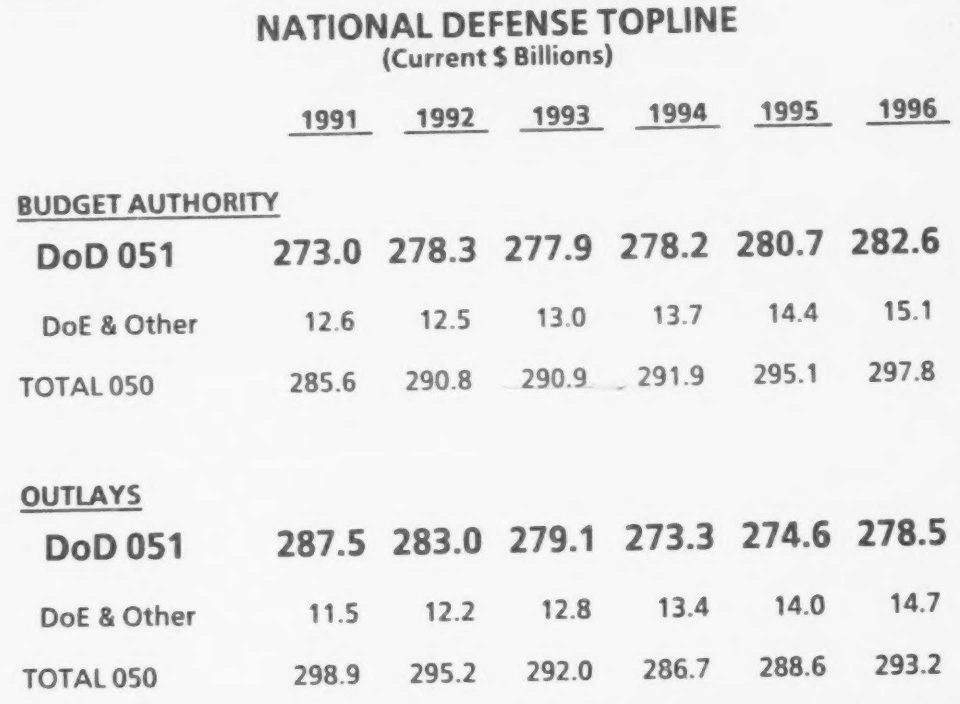
Our 1995 forces will approximate those targets and be well below the 1990 level.

Now, I will ask our DOD Comptroller to highlight other aspects of our budget request.

BUDGET DETAILS BY DOD COMPTROLLER

Mr. O'KEEFE. Thank you very much.

Mr. Chairman, Senator Domenici, I have a handful of boards here to go through to describe the highlights of the overall budget itself.



NATIONAL DEFENSE TOPLINE

(Current $ Billions)

	1991	1992	1993	1994	1995	1996
BUDGET AUTHORITY						
DoD 051	**273.0**	**278.3**	**277.9**	**278.2**	**280.7**	**282.6**
DoE & Other	12.6	12.5	13.0	13.7	14.4	15.1
TOTAL 050	285.6	290.8	290.9	291.9	295.1	297.8
OUTLAYS						
DoD 051	**287.5**	**283.0**	**279.1**	**273.3**	**274.6**	**278.5**
DoE & Other	11.5	12.2	12.8	13.4	14.0	14.7
TOTAL 050	298.9	295.2	292.0	286.7	288.6	293.2

For the top line, as Secretary Atwood alluded to, for the 1991 through 1993 totals, the budget summit agreement, of course, applies in terms of the caps between domestic, discretionary, international programs, and defense. These are the direct assumptions that were contained in the budget summit agreement.

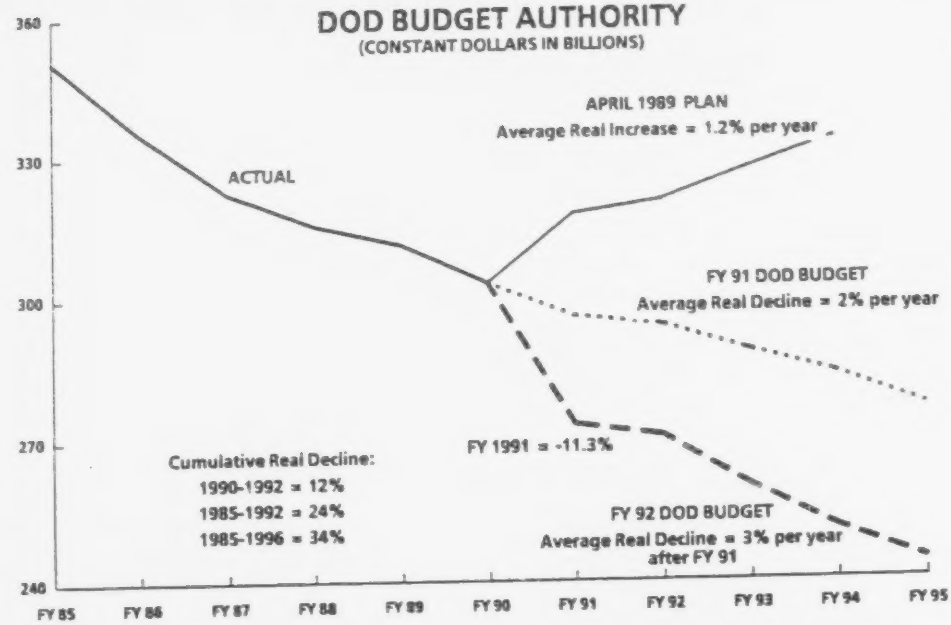
For 1994 and 1995, as you recall, the summit agreement provided for a total number for Federal discretionary spending. This is an extrapolation of the Defense 050 piece of that for 1994 and 1995.

For 1996 and 1997, it is a natural extension of the funding requirements we envisioned to provide for a force structure that is necessary based upon the highlights we will get into in just a moment. But our assumption is that 1996 and 1997 are extensions of that. The necessary funding is consistent with the summit agreement to support the smaller force structure we are about to go to.

Of course, the 051 section is the Department of Defense military personnel, operations and maintenance, procurement, research and development, as well as military construction of family housing.

DOE and other, prominently, is the Department of Energy nuclear piece or the weapons section of that particular part of the budget as well as a variety of different funding amounts contained in the various domestic appropriation bills, Federal Emergency Management Administration, Selective Service, et cetera.

But each of the totals you see highlighted are consistent with the summit agreement numbers for the outyears.



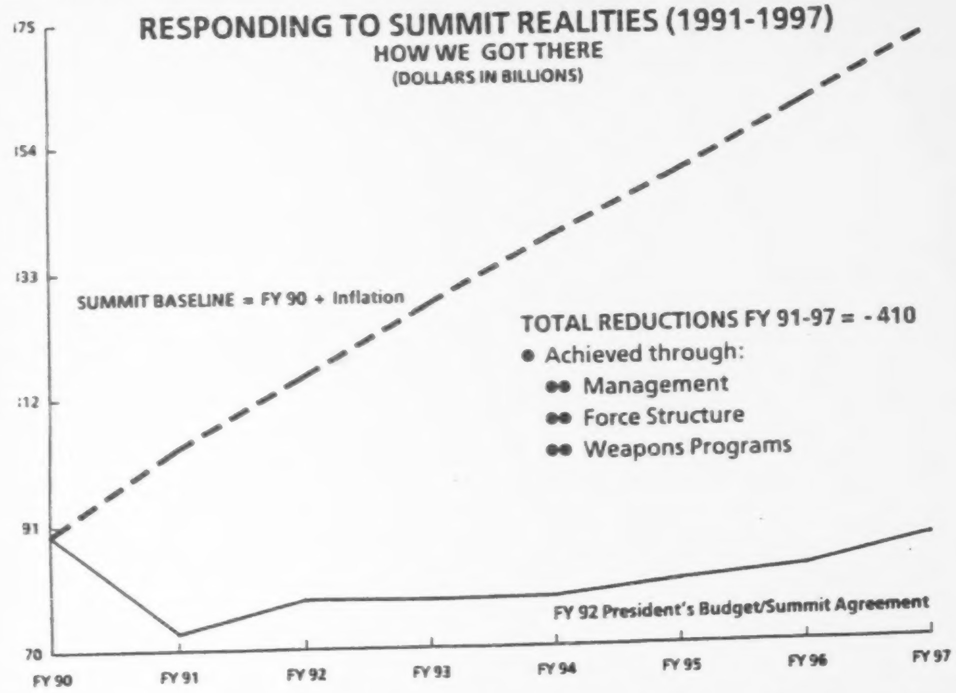
This next one, I guess, is a description of the request relative to where we were a year and, respectively, 2 years ago. This is lovingly referred to in the Pentagon as the pitch fork chart.

The top line is the first program that President Bush announced shortly after he was inaugurated, to provide for an average of about 1.2 percent real increase per year through the period of 1991 through 1994.

The middle line is the 2-percent real decline proposal that we advanced to the Congress last January, and then the bottom line is the resultant summit agreement path that provides for about an 11.5-percent real decline in 1991 to 1992, and then from there, an average annual decline of 3 percent per year.

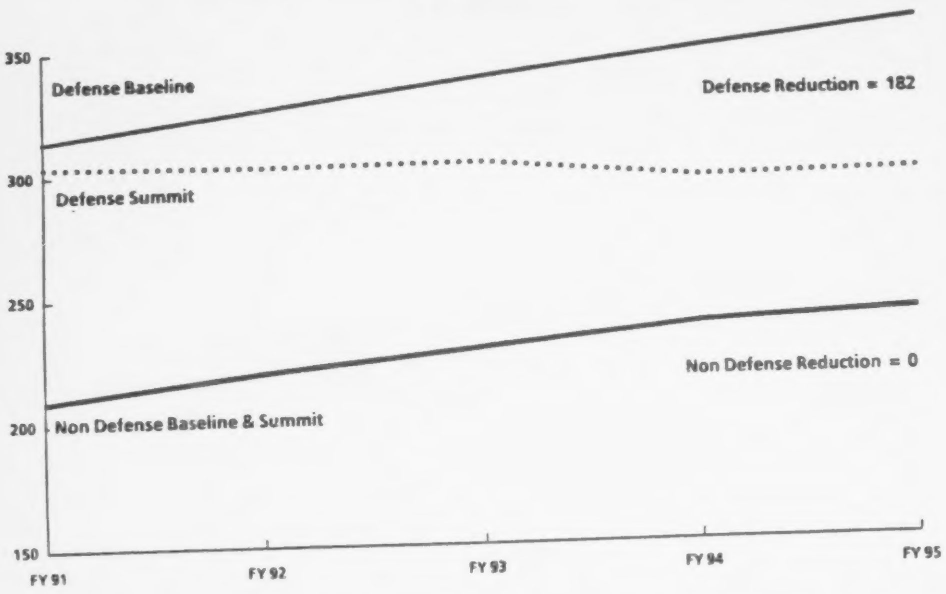
Cumulatively, over this particular period of time, if you look at the high water mark of the Reagan buildup in 1985 and match it against the fiscal year 1992 request before you, we are looking at a real reduction of about 24 percent.

Over the span of the program we are presenting, relative to that peak year of the Reagan buildup, the overall dollar amount required or dedicated to defense is about 34 percent in real terms below where we were at the highest levels of the Reagan years.



To give you a relative context of where the summit negotiators had to begin and where we resulted or where the resultant totals came from, the top line of the dashed line—excuse me, the blue line on top there describes the fiscal year 1990 plus inflation CBO baseline that the summit negotiators began with as they started down the path toward the $500 billion reduction that President Bush discussed in his recent state of the union address.

The bottom line or the actual graph at the bottom is the resultant summit agreement itself. The cumulative amount from 1991 through 1997 that represents is $410 billion, principally achieved through management savings which Secretary Atwood will go through shortly, force structure, and weapons procurement that would have otherwise been required to support a larger force structure than we retain right now.

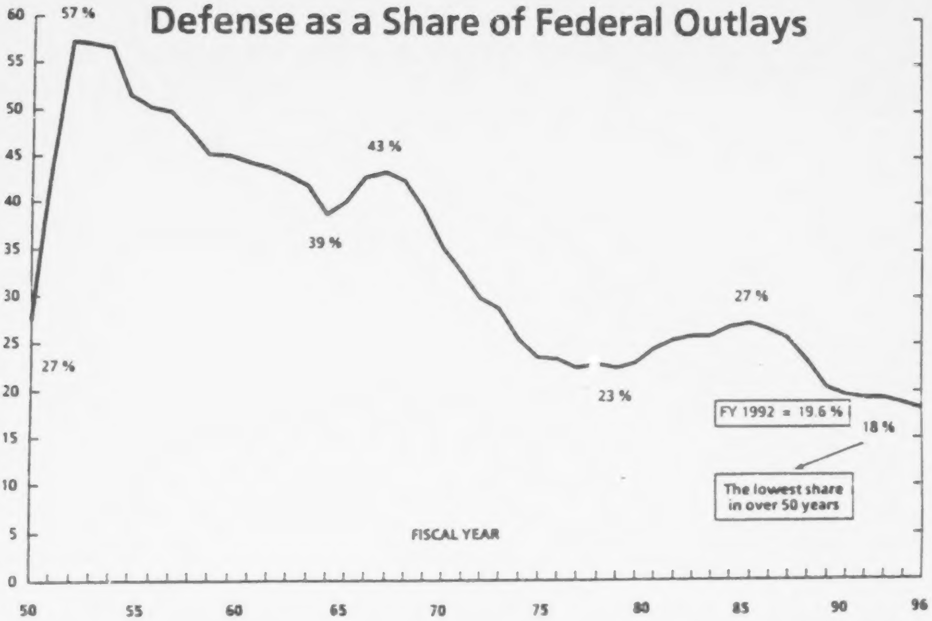


BUDGET SUMMIT DISCRETIONARY SPENDING LEVELS
(Dollars in Billions)

Again, relative to the summit agreement, the illustration here is an attempt to bring you back to the basic assumptions contained in the summit agreement.

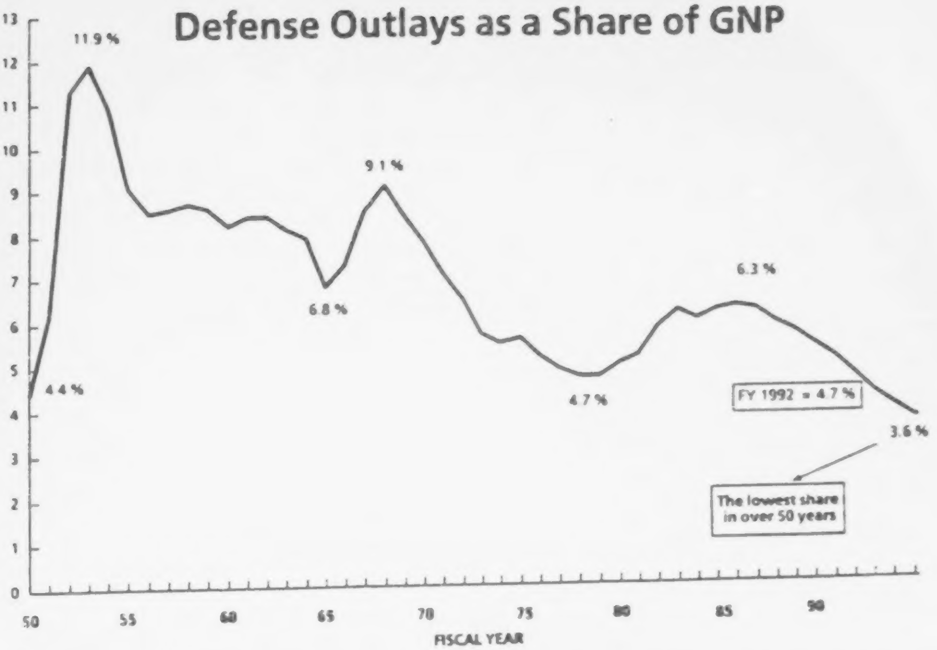
Again, as you will recall, the total objective from 1991 through 1995 was to achieve a $500 billion reduction; $182 billion of that was applied to discretionary spending. The balance of the reduction of the $500 billion was taken against international—excuse me, against specific revenue increases as well as entitlement programs.

But $182 billion was the domestic or discretionary target, of which the entire amount was applied against the Defense Department or defense spending in general. Therefore, there should be no decreases across for the domestic discretionary programs through this particular pattern.



And as Secretary Atwood mentioned, we are looking at a trend line for overall defense spending that is at a lower level than what we have seen in quite some time. The budget presented for 1992 in terms of Federal outlays or the overall share of what the Federal spending is 19.6 percent. This is below the level that we experienced post-Vietnam.

We are trending toward a level by 1995–96 that will be the lowest rate that we have seen since 1939. So again, for 1992, we will be spending at a rate that is substantially below what we did even in the immediate post-Vietnam period.



Defense Outlays as a Share of GNP

As a share of GNP or as a representation of the overall economic drain of defense spending in the 1992 budget is 4.7 percent of GNP.

By the end of the program we are presenting for 1995–96, we are to be looking at about 3.6 percent of GNP, which is again, the lowest level we have seen since before World War II.

FORCE STRUCTURE AND MANPOWER

FORCE STRUCTURE

	FY 1990	FY 1995
Army Divisions	28 (18 active)	18 (12 active)
Aircraft Carriers	13	12
Carrier Air Wings	15 (13 active)	13 (11 active)
Battle Force Ships	545	451
Tactical Fighter Wings	36 (24 active)	26 (15 active)
Strategic Bombers	268	181

To the general highlights of what is in the program at this point, and a comparison to where the force structure exists today, 1995 is the notional benchmark that we are striving toward in terms of the overall revised force structure plan that has been presented.

By way of illustration, it is a reduction from 18 Active divisions to 12 for the Army. For the Navy, reduction from the high water mark of the Reagan years of 15 aircraft carriers to 12 and 13 active carrier airwings to 11 active wings, and a reduction in battle force ships from the original objective of about 600 ships to about 450 by 1994–95, most of which will be achieved in the 1992–93 period.

In the case of Air Force tactical fighter wings, the original objective of about 44 wings to meet the contingencies of the mid-1980's in the cold war period is now down to 26 fighter wing equivalents by 1995; and the strategic bomber force reduction is principally a reflection of the retirement of the strategic B–52G aircraft.

DoD MANPOWER
(End Strength In Thousands)

	FY 87	FY 92	FY 93	FY 94	FY 95	FY 87-95 Change
ACTIVE MILITARY						
ARMY	781	660	618	577	536	-245
NAVY	587	551	536	516	510	-77
MARINE CORPS	199	188	182	176	171	-28
AIR FORCE	607	487	458	445	437	-170
TOTAL ACTIVE	2,174	1,886	1,795	1,714	1,653	-521
SELECTED RESERVES	1,151	1,068	989	924	906	-245
CIVILIANS	1,133	1,003	976	958	940	-193

In terms of the manpower to match that force structure, we are coming down by the 1995 timeframe, roughly the equivalent of the number of people we currently have deployed in the gulf. About 520,000 folks in the active forces in uniform will be removed from the force by 1995.

Relative to where we were in 1987, that is a decline from about 2.2 million folks in uniform to roughly a little more than 1.6 million.

On the Selected Reserve side, the reduction of 245,000 over that period is a smaller percentage than what we see as a reduction of the Active force; and it is primarily linked to deactivated divisions, airwings, et cetera, that we envision over this particular timeframe.

It is the roundout brigades, battalions, or combat service support that would be attendant to 18 versus 12 active divisions over this span.

The civilian reduction is roughly comparable percentage-wise to what we see in the overall uniform side, a reduction of about 193,000 civilians over that span.

MAJOR PROGRAM TERMINATIONS
(FY 92-93 BUDGET)

	Savings in Billions	
	FY 92	FY93-97
Bradley Fighting Vehicle	0.7	1.7
TRIDENT Submarine	1.4	2.8
LHD Amphibious Ship	-	2.1
P-7A Anti-Submarine Warfare Aircraft	0.6	5.4
F-14D Remanufacture	1.4	13.4
Naval Advanced Tactical Fighter	0.1	2.0
A-12 Aircraft	2.7	19.5
Air Force Advanced Tactical Aircraft	-	0.8
F-16 Aircraft (End of FY 93)	1.6	13.8
PEACEKEEPER Missiles	0.7	2.2
MARK XV Combat Identification System	0.1	0.2
BSTS Warning System	0.4	5.5
TACIT RAINBOW Program	0.2	2.3

As a consequence of reducing the overall size of the force structure, it therefore demands a much smaller inventory of assets. And given the very successful buildup period that occurred in the 1980's, the requirement for continuation of several production lines is no longer valid, given the fact, we have a much smaller force structure.

The terminations that were recommended by the Secretary and Secretary Atwood in going through this particular budget review fell prominently into one of two categories. Either programs for which we had sufficient inventory relative to what the overall size of the force structure will be by the 1995 timeframe; or programs that simply could not be accomplished because they had technical difficulties.

One exception to that would be treaty implications. The Trident submarine clearly reflects our expectation of a successfully negotiated Start Treaty. Therefore, this budget reflects the conclusion of the Trident submarine construction program at 18 ships, the last one of which was appropriated in fiscal year 1991.

MAJOR PROGRAMS TERMINATED LAST YEAR

- V-22 OSPREY (Production)
- F-14D Aircraft
- Army Helicopter Improvement Program (AHIP)
- PHOENIX Missile
- M-88A2 Improved Recovery Vehicle
- F-15E Aircraft
- Apache Helicopter
- M-1 Tank
- Maverick Missile

These terminations are in addition to the programs that were terminated last year. A couple of words are necessary on the V–22. The budget includes a provision to request the use of the prior-year advanced procurement funding that has been appropriated by Congress for the purposes of completing development of the V–22 aircraft.

The Secretary's position at this time is to continue the development and complete operational testing.

PROGRAM HIGHLIGHTS

FY 1992/FY 1993 STRATEGIC FORCES

(Dollars in Millions)

	FY 1992		FY 1993	
System	Quantity	Dollars	Quantity	Dollars
B-2A Bomber	4	4,822	7	4,639
Strategic Defense Initiative	-	4,581	-	4,933
TRIDENT II Missile	28	1,271	31	1,380
PEACEKEEPER/Rail Garrison	-	458	-	106
Small ICBM	-	549	-	715
Advanced Cruise Missile	120	626	102	552

To the highlights of what is still contained in the budget, I will tick through a couple of these quickly. The B–2 budget, of course, suggests the 75-aircraft objective the Secretary laid out last spring.

The strategic defense initiative is a revamped program in accord with Ambassador Cooper's efforts to develop a limited strike protection system. This is about 20 percent less funding than what you saw a year ago for SDI, but it also reflects a decision to move the theater defense initiative piece out of SDI funding.

A quick note on Peacekeeper/rail garrison, the final or the last FSD funding of any magnitude is in fiscal year 1992 represents the amounts we believe are required to test an MX missile off of a rail garrison car. This will probably occur in the late summer of 1992. After that successful launch, we anticipate putting the design into a warm status and to determine at that stage when a deployment may be necessary.

FY 1992/FY 1993 LAND FORCES
(Dollars in Millions)

	FY 1992		FY 1993	
System	Quantity	Dollars	Quantity	Dollars
UH-60 Helicopter	60	508	60	428
SINCGARS	-	288	-	292
Light Helicopter	-	550	-	617
Apache Longbow	-	233	-	264
Medium Tactical Vehicles	1,815	170	3,288	293

On the land forces side, this is a representation of the vigorous modernization that had occurred in the Army forces over the period of the 1980's. The UH–60 helicopter, of course, remains in production, but this will be dedicated exclusively to Guard and Reserve component requirements for the foreseeable future.

The light helicopter is the first full-scale development effort in the Army in awhile, and it will begin modernizing the Army's lift capability. The demonstration/validation phase is funded in 1992–93, leading toward full-scale development by the mid-1990's.

FY 1992/FY 1993 NAVAL FORCES

(Dollars in Millions)

System	FY 1992		FY 1993	
	Quantity	Dollars	Quantity	Dollars
Aircraft Carrier Replacement	-	-	-	852
SSN-21 Submarine	1	2,382	1	2,464
DDG-51 Destroyer	5	4,335	4	3,480
LSD (CV)	1	245	1	251
MHC Coastal Minehunter	2	231	2	222
TAGOS Surtass Surveillance Ship	-	-	1	150
AOE Replenishment Ship	1	540	-	-

There are a couple of highlights in the budget for naval forces. Long-lead funding is required in fiscal year 1993 for an aircraft carrier to match fiscal year 1995 full funding of a ship that would ultimately begin construction in 1995 and probably deliver about the year 2004. Again, the objective is to maintain a 12-carrier fleet and this is the best business approach that ensures that the replacement rate is adequate.

The SSN–21 submarine profile is different than what you saw last summer, attendant to the Secretary's major warship review. This is a one-ship-per-year production program or construction program through the period 1992 to 1995 and then in 1996, it bumps up to two ships per year.

The DDG–51 profile is also slightly different than last summer. It was modified somewhat to ensure that we get the maximum competitive advantage.

FY 1992/FY 1993 TACTICAL AIR FORCES
(Dollars in Millions)

	FY 1992		FY 1993	
System	Quantity	Dollars	Quantity	Dollars
F/A-18	36	2,423	20	2,534
Advanced Tactical Fighter	-	1,637	-	2,325
F-16 D	48	1,419	24	923
C-17	6	2,831	12	4,212
EA-6B Remanufacture	-	110	3	556
AMRAAM	1,191	1,031	1,469	1,049
MILSTAR (Restructured)	-	1,404	-	1,536

Now, to the tactical air forces, the F–18 production budget reflects the decision to continue the construction rate of the F–18 as an interim solution, given the termination of the A–12 aircraft. There is sufficient funding contained in 1992 to 1996 to develop an E version of the F–18 for longer range, better night capability, et cetera. There is also funding contained in 1992 and 1993 to rewing approximately 60 A–6 combat attack aircraft to restore their full flight.

The advanced tactical fighter continues development with the full-scale development program beginning in 1992.

The F–16 request supports an orderly closeout of the program with the last 24 aircraft requested in fiscal year 1993 to meet the requirements we have for 26.5 tactical fight wings.

DEFENSE MANAGEMENT

Mr. Chairman, I would be remiss if we did not spend just a moment to let you know that there are other things that we are doing to reduce costs, in addition to just cutting back on our force structure or cutting back on major weapons.

And this has been an ongoing program since we prepared a defense management report for the President in early summer of 1989. It includes a large number of significant efforts to reorganize, restructure, and eliminate non-value-added tasks.

Perhaps the two most important elements in that are those tasks which allow us to have timely, comprehensive, and accurate information in order to do our job. And to that end, we are in the process of revitalizing and standardizing all of our data processing and corporate information management systems.

We feel we have invested very heavily in hardware, but we have not standardized on the sort of software systems throughout the entire Department which will enable us to do that.

And second, to consolidate our finance and accounting systems. You will probably recall that we have been under criticism that some of our financial systems do not give us the kind of total operating costs which enable you to make good decisions.

With these reorganizations we feel we will have that information at hand, and I think it is going to be a much better operating system.

Beyond that, we are coordinating all of our maintenance depots, to eliminate depots that do duplicative type of work. And we are consolidating and reorganizing all of our supply depots.

Perhaps one of the most important things we are doing is to take a whole new look at the way we conduct our research and development activities. One of the key steps that we are taking for the future is to recognize what has happened in terms of smart weapons and Stealth aircraft and cruise missiles, and to, in effect, make a major restructuring of the conduct of our research and development efforts to avoid duplication and to eliminate those areas that we are not putting as much effort into.

We have reorganized our contract management and we have consolidated our commissary operations. Now to give you an idea of the magnitude of these and the savings which we are envisioning, over the 1992–93 budget period, through the 1997 planning period, we estimate that reductions of approximately $70 billion in expenditures by DOD will be achieved.

And these will be achieved without taking out a single member of the Armed Forces or taking out any of the major weapons or reducing any of our aircraft or ships. These are savings in the way we do business, savings because of the efficiency of our operation.

With that, I would like to stop and open it up to any questions that you might have.

[The statement follows:]

STATEMENT OF DONALD J. ATWOOD

Mr. Chairman, members of the Committee, thank you for this opportunity to discuss the Administration's fiscal year (FY) 1992-93 defense budget request.

America's crucially important military actions in the Persian Gulf these past seven months have been a vivid reminder of the consequences of the decisions that this and other committees of Congress will make regarding our nation's defense posture. Our shared responsibility is to ensure that in any future crisis U.S. forces will be able to perform as magnificently as they have in this one.

STRATEGIC OVERVIEW

During the past two years, the global security environment has changed dramatically. Many of the positive changes were made possible by the West's post-war strategy of containment, deterrence, and support for democracy around the world. In Europe, dramatic changes in the Soviet Union and its former satellites--if favorable trends prevail--will eliminate the threat of a massive, short-warning attack on our NATO allies. But elsewhere as well, the movement of Soviet thinking away from foreign policies detrimental to U.S. interests has made possible the revision of America's defense plans.

In response to the changing global security environment, a new defense strategy has been devised and approved by the President. The most significant new feature of U.S. defense strategy is that it is no longer focused primarily on the threat of Soviet-led aggression that would engulf Europe and probably much of the world. On the other hand, our strategy does take account of the uncertainty regarding the eventual outcome of the upheaval in the Soviet Union, and the massive Soviet military capabilities that we expect to remain for the foreseeable future.

While keeping a watchful eye on Soviet military power, the new U.S. defense strategy sizes our active and reserve forces principally against major regional contingencies that could threaten American interests. These threats have not diminished, as recent events in the Middle East have proven. And they have become ever more dangerous by the disturbing number of Third World countries with formidable conventional forces, and by the proliferation of ballistic missiles, and weapons of mass destruction--with chemical, biological, and even nuclear potential. Also continuing is the threat posed by drug trafficking and terrorism.

The defense budget the Administration is now presenting charts a path to virtually the smallest U.S. force level since World War II. We are confident that the capabilities these forces will possess are prudently matched to the threat we have been projecting. However, these forces represent the irreducible minimum to which our forces should be reduced; cutting below these levels would not leave us with needed capabilities, even under quite positive future trends.

Recent times have made us all keenly aware of how unpredictable the world can be. Should the security environment look less promising than we are now projecting, we may need to reassess our current plans for reductions through the mid-1990s.

While the threats to U.S. security are changing, the central goal of U.S. defense strategy should not change. Our goal remains--as it has for decades--to deter aggression against our nation, its allies, and its interests. To do that, we must retain a military posture designed to convince potential adversaries that we are capable of denying their hostile aims and that the cost to them of aggression would exceed any possible gain. Should deterrence fail, our strategy seeks to defeat aggression on terms favorable to U.S. interests.

What has changed in U.S. defense strategy is how we plan to deter and defeat aggression in the new global environment.

The major elements of the new U.S. defense strategy are:

- Strategic deterrence and defense. Given ongoing Soviet strategic nuclear modernization, America must continue to maintain a diverse mix of survivable and highly capable offensive nuclear forces. But we also should pursue a defensive system for global protection against limited ballistic missile strikes--whatever their source.

- Forward presence. Although the changing global environment allows us to reduce our permanent foreign deployments, some U.S. forces must remain deployed overseas in areas of U.S. interest. The forward presence of U.S. forces makes for more credible deterrence, promotes regional stability, and provides us an initial capability for crisis response and escalation control.

- Crisis response. U.S. conventional forces must be able to respond rapidly to short-notice regional crises and contingencies that threaten U.S. interests. That requirement will guide the stationing, size, and capabilities of U.S. conventional forces.

- Force reconstitution. Even though a global war against Soviet and Soviet-backed forces has become far less likely, we must maintain the ability to reconstitute a larger force structure if a resurgent threat of massive conflict returns. This requires us to retain those features of force capability that are most difficult to reconstitute (e.g., quality personnel and a capable U.S. industrial and technology base.)

America's defense strategy will continue to evolve as we monitor the many fast-paced sources of change in this new, but still emerging global security environment. Certain to endure, however, are the fundamental principles that have guided America's successful post-war defense strategy: deterrence, collective security, forward presence, prudent arms control, and steadfast American leadership.

OPERATION DESERT SHIELD/DESERT STORM

The 1990 budget summit agreement specified that incremental costs associated with Operation DESERT SHIELD are to be treated as emergency funding requirements, not subject to the defense caps in the agreement. The President's FY 1992-93 defense request and its projected long-term outlays do not reflect those costs, including DoD's eventual requirements as a result of DESERT SHIELD and DESERT

STORM. Moreover, some of the program decisions in the FY 1992-93 request may have to be adjusted in the aftermath of the Gulf crisis.

FY 1990 incremental costs associated with DESERT SHIELD and increased fuel prices were covered by shifts in previously appropriated DoD funds ($800 million) and by a supplemental appropriation ($2.1 billion). For FY 1991, the President is requesting a supplemental appropriation which, when added to contributions from our allies, could cover the DESERT SHIELD/STORM costs that we project for the foreseeable future. I urge timely passage of this supplemental request.

Pending passage of our supplemental request, U.S. forces engaged in and supporting combat operations in the Middle East have required uninterrupted support. To that end, Secretary Cheney has authorized the obligation of funds in excess of available appropriations, in accordance with section 3732 of the Revised Statutes, commonly called the Feed and Forage Act. The incurring of deficiencies has been authorized for clothing, subsistence, forage, fuel, quarters, transportation, and medical and hospital supplies. Additionally, pursuant to Section 2201 of Title 10 and in view of the President's determination of the necessity to continue on active duty more members of the armed forces than were provided for in DoD appropriations, the Secretary has authorized the incurring of deficiencies for the costs of such personnel.

DEFENSE BUDGET OVERVIEW AND PRIORITIES

The Administration's FY 1992-93 budget request is the first installment of the Defense Department's comprehensive FY 1992-97 multiyear defense program. That program is the result of the Department's rigorous analysis of the capabilities needed to support the new U.S. defense strategy. The overall goal is to streamline and restructure America's armed forces, in order to provide those needed capabilities within projected fiscal constraints. In essence, U.S. forces are becoming smaller, but still fully capable of securing our nation and its global interests.

The FY 1992-93 DoD budget reflects priorities that flow directly from our new strategy. Rapid response to global crises requires sustainment of the current high quality and superior capabilities of U.S. forces, especially as their total size is reduced. This in turn requires continued support for the high quality of U.S. military personnel, vigorous defense research and development, the fielding of advanced military systems as soon as necessary, and the preservation of critical elements of America's defense industrial and technology base. These priorities also enable DoD to reconstitute a larger military posture, if needed.

Other priorities include the ability to project military power rapidly to areas of U.S. strategic interest. The new strategy also requires that U.S. forces sustain their traditional high readiness. To ensure credible nuclear deterrence, DoD will maintain strong offensive nuclear forces. We will also pursue strategic and theater defenses to provide global protection against limited ballistic missile strikes--regardless of their source.

DoD budget proposals also reflect Secretary Cheney's and my commitment to continue to strengthen defense management and streamline the U.S. defense infrastructure, to extract the greatest security value from increasingly scarce resources. Special attention is going toward efficient acquisition. The goals include funding sustainable production rates for essential programs and terminating lower priority programs.

FY 1992-93 DEFENSE BUDGET REQUEST

The FY 1992 DoD request is $278.3 billion in budget authority and $283.0 billion in outlays. Adjusting for inflation, this means a real decline in DoD budget authority of 1 percent below FY 1991, 12 percent below FY 1990, and 24 percent below FY 1985. In FY 1996, the cumulative real decline since FY 1985 will reach 34 percent.

DoD budget authority levels for FY 1991 through FY 1995 are consistent with the discretionary caps for defense in last fall's budget summit agreement. These topline numbers represent a nominal freeze in DoD budget authority at about $278 billion, starting in FY 1992. Total DoD budget authority for FY 1991 through FY 1995 will be $131 billion less than estimated in the President's January 1990 request. After an 11.3 percent real decline in FY 1991, DoD budget authority will decline, in real terms, an average 3 percent per year through FY 1996.

DoD outlays as a share of America's Gross National Product (GNP) are expected to fall to 3.6 percent in FY 1996, the lowest level since before World War II and well below the 4.7 percent reached during the defense decline of the 1970s.

The Administration's FY 1992-93 budget request is the result of many months of intense scrutiny. We have come down to the budget summit's lower defense levels through a combination of management initiatives, cuts in force structure and major procurement programs, and numerous reductions made during a rigorous budget review this past fall.

Force Structure

The FY 1992-93 request includes reductions in the U.S. force structure that continue a prudently phased plan for reaching the force targets established for the new strategy and threat projections. Our FY 1995 forces will approximate those targets and be well below FY 1990 levels.

U.S. strategic forces are programmed to be scaled back in accordance with expectations regarding arms reductions agreements and to enable DoD to maintain credible strategic deterrence at the least cost. Retirement of the Minuteman II force will begin in FY 1992. Retirements of submarines with the aging Poseidon missile are to be accelerated. During the 1990s, the current mix of 34 Poseidon and Trident boats will be reduced to a force of 18 Trident submarines carrying Trident I (C-4) and Trident II (D-5) missiles. Strategic bombers will decrease from 268 in FY 1990 to 171 in FY 1993, as older B-52s are retired and FB-111s are transferred to tactical use.

U.S. conventional forces will be restructured so that they best support the new strategy. For crisis response, we must be able to deploy to regions of U.S. interest sufficient forces with the capabilities needed to counter a wide variety of contingencies. Thus the restructured force will include a high airlift and sealift capacity, substantial and highly effective maritime and amphibious forces, a full and sophisticated array of combat aircraft, both heavy and light Army divisions, and appropriate special operations forces.

Because serious contingencies can arise quickly, a timely U.S. response would require mostly active forces. Reserve forces would initially provide airlift, sealift, and some other vital support for deploying forces. When longer preparation allowed, reserve components could provide additional support, plus combat units that would be needed for larger or prolonged deployments.

In applying the new strategy to our Total Force posture, we project that reserve forces will decline by about the same percentage as active forces. That circumstance, however, should not mask the fact that our future force will not merely be a proportionally scaled-back version of today's force. We are planning to eliminate those forces--be they active or reserve--whose justification has been based on the previous threat of short-notice global war. We have given priority to preserving a mix of forces that can best meet our strategy's requirements for forward presence and crisis response. Some types of reserve forces will be fully retained or even increased, while others will be cut considerably. For example, Army reserve (and active) components will be cut substantially; in contrast, the Air Force reserve will decline only slightly. The criteria for such restructuring have come from the new strategy.

To help provide for reconstitution in our new strategy, some reserve forces will be maintained in "cadre" status. Cadre units would have greatly reduced manpower and training; but they would have the equipment and other preparations needed to facilitate a smooth transition to full strength if required. Our plans currently include two cadre divisions in the Army (not counted in the 18 divisions programmed for FY 1995), plus creation of a new status for some Navy frigates.

Personnel Programs and Issues

In connection with the restructuring of America's armed forces, U.S. military manpower will decline considerably in the coming years. By the end of FY 1995, active military end strength will fall to 1,653,000, 24 percent below its post-Vietnam peak of 2,174,000 in FY 1987. In FY 1995, reserve personnel levels will drop to 906,000, 21 percent below FY 1987.

While manpower is projected to decline, there will be no diminution in DoD support for pay and other incentives aimed at preserving the high quality and morale of America's uniformed men and women. This budget requests pay raises of 4.2 percent for FY 1992 and 4.7 percent for FY 1993. And as we draw down our manpower, we are determined to do so in ways that reflect our nation's appreciation for its uniformed men and women and their many sacrifices on our behalf.

In FY 1993, DoD civilian strength will fall to 976,000, about 9 percent below FY 1990. In FY 1995, DoD civilian strength is projected to drop to 940,000, about 17 percent below its post-Vietnam peak of 1,133,000 in FY 1987. This decrease will be the result of both a smaller military force structure and DoD management improvements.

Readiness

A strategy geared to crisis response demands that its component forces be ready to perform their missions on short notice. The FY 1992-93 request includes spending on training, maintenance, and other relevant accounts at levels sufficient to sustain the traditionally high readiness of U.S. forces. The request funds a training tempo approximately the same as in FY 1991. Active Army ground and air training operations will continue at 800 miles per year for combat vehicles and 14.5 flying hours per month for tactical aircrews. Navy steaming days remain at 50.5/29.0 days per quarter for the deployed/non-deployed fleets. Flying hours for active Air Force tactical aircrews will hold at about 19 hours per month.

Investment

In FY 1992-93, the fielding of advanced weapons and other systems will continue, although many programs have been adjusted in recognition of evolving requirements and to bring acquisition plans in line with reduced defense spending projections. For example, major adjustments have been made in the B-2 bomber, C-17 transport, SSN-21 attack submarine, and Milstar communications satellite programs.

The FY 1992-93 budget submission terminates a number of major programs. These terminations come on top of those made in DoD's FY 1991 request. Our request also includes rescissions of $3.4 billion in FY 1991, reflecting proposed program terminations in FY 1992 and the elimination of other lower-priority expenditures.

Strategic Forces and SDI. Modernization of U.S. strategic systems is being scaled back or adjusted substantially. Funding for the Rail-garrison Peacekeeper is cut back significantly, but development of the small ICBM is continuing. ASAT funding has been substantially reduced. The backfit of 8 Trident submarines to carry D-5 missiles has been deferred beyond FY 1997. The Milstar satellite program has been substantially restructured to reduce costs, eliminate certain expensive survivability features, and support most effectively both tactical and strategic requirements. Consistent with my restructuring last year of the B-2 Stealth bomber program, the request calls for procurement of 4 aircraft in FY 1992 and 7 in FY 1993.

The Strategic Defense Initiative (SDI) is being reoriented to provide global protection against limited ballistic missile strikes--whatever their source. This reorientation will make possible major savings, about 20 percent over the next 6 years compared to the earlier plan. In FY 1992, $4.6 billion is requested for SDI and $4.9 billion in FY 1993.

This refocused defensive concept, known as Global Protection Against Limited Strikes (GPALS), includes theater missile defenses to protect U.S. and allied troops deployed abroad. To centralize and accelerate development of such defenses, the Strategic Defense Initiative Organization has been charged with developing advanced defensive technologies to deploy much improved, transportable theater missile defenses within the next 5 years. Budget authority for the Tactical Missile Defense Initiative (TMDI) will $218 million in FY 1991, $603 million in FY 1992 and $724 million in FY 1993.

Conventional Forces. The Army's major modernization effort, begun in the early 1980s, is nearly complete. However, important development continues on the Light Helicopter and armored vehicles.

Procurement of the Navy's SSN-21 attack submarine has been scaled back to one per year. Other naval modernization priorities include Aegis destroyers, F/A-18 fighters, and several types of tactical missiles. Regarding sealift, DoD expects to be able to meet its most important contingency requirements worldwide, especially because of the programmed increase of the Ready Reserve Force (RRF) from 96 to 142 cargo and tanker ships by FY 1994. DoD is also initiating a sealift program in FY 1993 to improve U.S. response time for those contingencies. Consistent with this effort, a program is being structured to utilize funds appropriated in FY 1991.

Modernization of U.S. tactical air forces continues with procurement of F-16 fighters, C-130 transports, and AMRAAM missiles. The next generation air superiority fighter--the Advanced Tactical Fighter (ATF)--continues in development. The C-17 program has been scaled back and extended. But the C-17 is needed more than ever to begin to replace aging C-141s, which have been used so heavily in the Gulf crisis.

Research, Development, Test and Evaluation (RDT&E). Reflecting our emphasis on preserving the technological superiority of U.S. forces, FY 1993 RDT&E budget authority will, after inflation, be 10 percent above FY 1991 levels. DoD Technology Base funding--$3.9 billion in FY 1992 and $4.0 billion in FY 1993--will include emphasis on high performance computing and improved materials for electronics, gas turbine engines, and airframe components.

To understand why we believe "high tech" is so critical, look at how important are our stealth, advanced electronics, and other technologies in the Gulf war. U.S. technological advantages are decisive in terms of superior target detection, accuracy, survivability, night fighting, effective range of weapons, and many other components of combat success.

Base Closure. The streamlining of the military's base structure is continuing with the elimination or closure of 86 domestic bases and 139 overseas sites. In addition, 5 domestic bases will be partially closed and another 25 overseas sites will be drawn down. During 1991 a new commission will review Secretary Cheney's proposals for additional base closures and realignments and make recommendations for consideration by the President and the Congress. No new proposals are included in this FY 1992-93 request; but savings of $150 million in FY 1992 and $735 million in FY 1993 are included in its legislative contingency account, in anticipation of Congressional approval.

DEFENSE MANAGEMENT

DoD management continues to undergo fundamental change through implementation of Secretary Cheney's July 1989 Defense Management Report (DMR). From the start, our mission has been to strengthen DoD's management and operating effectiveness, while reducing costs.

Improving defense acquisition has been a principal focus of our DMR-related efforts. Our goals are to streamline our acquisition structure and simplify the process. We seek smaller, high-quality staffs that delegate decision authority down to the lowest level, while enforcing clear operating guidelines. Our new acquisition system features abbreviated lines of authority within each military service. We are eliminating unnecessary management layers, limiting unneeded reporting requirements, reducing burdensome regulations, and enhancing the education and quality of our acquisition professionals. We also are stressing stability in both program funding and management personnel.

The guiding concept for DoD's management improvements has been centralized policies, procedures, standards, and systems, but decentralized execution and implementation. That idea is guiding us in numerous efforts to reduce overhead, cut excess infrastructure and redundancy, and consolidate and improve numerous common functions.

Data Processing and CIM. One good example of our approach is in the area of data processing. Our Corporate Information Management (CIM) initiative aims to: identify management efficiencies in business areas common to more than one defense organization; improve the standardization, quality, and consistency of data from DoD's multiple management information systems; and reduce the costs of developing and maintaining these systems. Our overarching goal is to formulate and sustain a standard information system for each broadly defined DoD functional area. By eliminating duplicative development of systems, we expect net cost reductions of $2.8 billion for FY 1991-97. These savings are net of an investment of $1.3 billion to standardize and improve DoD's business practices.

Finance and Accounting Services. Another example is our creation of the Defense Finance and Accounting Service (DFAS) under the DoD Comptroller. Established on January 15, 1991, DFAS will help provide timely, comprehensive, and accurate financial data to DoD managers; consolidate and standardize the Department's diverse finance and accounting operations and policies; and improve customer service, while reducing costs. Although savings through the elimination of overhead and management layers will be quickly achievable, far greater savings will be realized once standardization is achieved. There are 250 DoD accounting systems in operation today. Our goal is not merely to consolidate and automate these old systems. Our aim is to create new, standardized, and more effective business practices. Savings of $150 million annually are envisioned, once our planned standardization is complete. We are determined to streamline and strengthen DoD's financial management, and to facilitate the future use of new technologies to cut costs even further.

Maintenance Depots. Another major action involves DoD's maintenance depots. We are working toward a substantial increase in the utilization of depot capacity, greater competition among the military services and with the private sector, reduced infrastructure, and improvements in DoD's maintenance productivity. So far, we have approved plans to reduce maintenance costs by $6.3 billion for FY 1991-97. We also are formulating plans for standardizing and consolidating financial management, inventory control, and other information needs for depot maintenance activities.

General Supply Depots. Of equal significance is our decision to consolidate under the Defense Logistics Agency (DLA) all DoD general supply depot distribution activities within the continental United States. This will save base and headquarters overhead costs, construction and systems development costs, and inventory and transportation costs, plus improve the utilization of DoD's existing supply capacity. We expect savings to total $1.2 billion for FY 1991-97.

Contract Management. DLA also will be involved in the consolidation of nearly all DoD contract administration functions. Under DLA, the Defense Contract Management Command will enable us to reduce overhead and payroll costs, promote uniform procurement policies, and upgrade the quality of our contract administration work force.

RDT&E Operations. To increase efficiency and reduce the costs of our RDT&E operations, there will be greater coordination within the Department on specific technology areas, consolidation of facilities, and enhanced competition for science and technology tasks among laboratories. Management oversight also will be increased to improve the quality, productivity, and effectiveness of RDT&E operations.

Commissary Consolidation. A final example of our management efforts is the unifying of the separate commissary systems of the Army, Navy, Air Force, and Marine Corps. The Defense Commissary Agency (DeCA) will enable us to achieve the kind of economies available to large supermarket chains, and to improve service and lower costs for the customer.

As a result of all our many DMR-related management efforts, the Department anticipates reductions of about 30,000 civilian and 40,000 military positions by the end of FY 1997. We expect our management initiatives to save over $70 billion for FY 1991-97. Justification of our estimates of DMR-related savings will be presented in a March 1991 report. We have removed these projected savings from our budget plans and have no doubt that we can realize them. Doing so will allow us to avoid cutting more divisions or air wings or people to make those costs.

CONCLUSION

Our nation's past investments in defense have made possible the successful end to the Cold War and, now, the liberation of Kuwait. America's resolve to stay strong also has laid the foundation for a more promising world order. To support continued progress, while safeguarding our national interests against threats that still loom, we must spend our defense dollars wisely. In that shared goal, Secretary Cheney and I look forward to working with this committee and the Congress.

DEFENSE BUDGET PRIORITIES

- People
- Power Projection/Mobility
- Force Quality
- Readiness
- Strategic Offensive and Defensive Forces
- Technological Advantage
- Efficient Acquisition
- Streamlined Infrastructure

DoD BUDGET AUTHORITY
($ in Billions)

	1991	1992	1993	1994	1995	Cumulative 1991-1995
President's Budget January 1990	295.1	300.0	304.4	308.0	311.8	1,519.3
Real Program Decline	-2.6%	-2.0%	-2.0%	-2.0%	-2.0%	-10.6%
Dollar Reduction	-22.1	-21.7	-26.5	-29.8	-31.1	-131.2
President's Budget February 1991	273.0	278.3	277.9	278.2	280.7	1,388.1
Real Program Decline	-11.3%	-0.9%	-3.9%	-3.6%	-2.7%	-22.4%

DEFENSE MANAGEMENT REPORT INITIATIVES

- Data Processing & Corporate Information Management
- Consolidate Finance and Accounting Services
- Coordinate Maintenance Depot Services
- Consolidate Supply Depots
- Reorganize Contract Management
- Improve Technical/Engineering Research & Development
- Consolidate Commissary Operations

MILITARY END STRENGTHS

Senator INOUYE. Mr. Secretary, as always, your presentation is very impressive.

Like you, I have tried my best to study your budget presentation, together with the Desert Shield/Desert Storm supplemental presentation, and in doing that, I have reached certain assumptions. I want to get your thoughts as to whether my assumptions are correct.

The first assumption is that as a result of this war in the gulf, all of our services will end fiscal year 1991 with higher end-strengths than programmed. Would that be correct?

Mr. ATWOOD. That is correct.

Senator INOUYE. Now if that is the case——

Mr. ATWOOD. I am sorry. Could I add to that? That is assuming everything goes as it presently is. We do not have an end of hostilities and we have not been able to bring people back as yet.

Senator INOUYE. In order to reach the fiscal year 1992 end-strength numbers, each service would have to make larger manpower reductions than assumed in the budget. Is that assumption correct?

Mr. ATWOOD. In order to make the top line——

Senator INOUYE. The 1992 numbers?

Mr. ATWOOD. The 1992 numbers, we would have to reduce personnel in 1991, which, because of Desert Storm, we are unable to do.

Senator INOUYE. For example, some of the numbers that I have come across says that for the Army in fiscal year 1991, we had 702,170; is that correct?

Mr. ATWOOD. Let me look to make sure I verify that number. For the Army we have, as of——

Senator INOUYE. We are supposed to have in fiscal year 1991, 702,170.

Mr. ATWOOD. I do not have that number in front of me. It goes down to 660,000 in 1992.

Senator INOUYE. In 1992?

Mr. ATWOOD. Yes.

Senator INOUYE. Now if the numbers were 702,000, then all they have to do is to reduce it by 42,170, but we have been advised that we have at this moment anywhere from 20,000 to 65,000 additional personnel in the ranks at the end of fiscal year 1991.

If that is the case, the reductions would be much larger than anticipated, and add to this other imponderables, such as permanent change of station travel costs, separation pay. We have no idea how long they will have to stay in Saudi Arabia.

Have we taken steps to resolve this mismatch?

Mr. ATWOOD. Yes. Let me just quote from the numbers that I have, Mr. Chairman.

I have fiscal year—let me talk about the Army only, fiscal year 1990 actuals: 750,000 people. In 1991, the estimate was this would come down to 702,000 people, a change of approximately 42,000 personnel, and that by 1992, we would be down to 660,000.

You are correct in saying we have not accomplished yet the reductions in order to meet the 1991 targets. Therefore, the cost of keeping those personnel in has been included in the costs which we put forward in our supplemental because of Desert Shield.

Senator INOUYE. But you are going to go down to 660,000?

Mr. ATWOOD. In 1992, the budget was put together as though there were no Desert Shield or Desert Storm, and our end point was to come down to 660,000 personnel in the Army.

Senator INOUYE. Did you factor in other costs, which I am not certain you put that in the supplemental or not, such as separation pay, travel pay?

Mr. ATWOOD. All of that, to get down to the 660,000 is in the regular budget.

Senator INOUYE. You are satisfied that this will resolve it?

Mr. ATWOOD. Yes. I am satisfied also, Mr. Chairman, that what we put forward as costs for Desert Shield and Desert Storm will take care of the difference between reaching the 660,000 and that which we have to keep at in order to execute the conflict over there.

Mr. O'KEEFE. Mr. Chairman, if I could add a couple of points to what Secretary Atwood has mentioned. There are two variables that are really unknown at this point, but that will become clear soon. The first of which will be the pace of the redeployment home and how this will affect this particular set of numbers.

The second factor that is a major driver here is the day that the Army elects to revoke the stop-loss provision, which would then let folks who would have otherwise retired go ahead or to involuntarily separate, leave the service.

We do not know what that impact is going to be. As soon as it occurs, we will get a better fix on exactly how probable the 660,000 number is going to be for the Army. The Department's ability to meet an end-strength target of roughly 1.9 million will become clearer itself much more over the next couple or 3 months.

By the time the subcommittee is prepared to begin markup, we will have a better fix on exactly how probable this particular set of targets is going to be and we will be prepared to work with you at that time.

Senator INOUYE. In other words, all of us are working on certain assumptions we hope will come true.

Mr. O'KEEFE. We always are.

NAVAL AVIATION

Senator INOUYE. I would like to go to naval aviation now, if I may. We have just about crippled the naval aviation program. We have canceled the A–12, we have terminated the Navy ATF, the P–7, the F–14 remanufacturing. We are cutting back on the F/A–18 production rate. Some have argued that the Department's plan to upgrade the F/A–18 and cancel the F–14 rewards the contractor who did not perform to the terms and conditions of the contract for the A–12, and penalizes the contractor who performed on the remanufacturing contract.

Where do we go?

Mr. ATWOOD. Those are all valid questions that you ask. And let me take it from the top, if I might. We have had two major cancellations this past year. One was for the P–7, which was a followon and enhanced version of the ASW aircraft, the P–3. The P–7 was canceled for default. The contractor did not perform the requirements of the contract and, therefore, it was terminated for default.

This does not leave us without an ASW capability. We still have the P–3's. In fact, the P–3 line is now open as they are beginning to manufacture for a Korean application. We are looking at what we can do to upgrade the avionics and upgrade the information-handling equipment in the P–3. We are not going back to renegotiate on the P–7 contract, however. We regret this very much, because we wanted the P–7. We regret very much the performance that caused us to cancel it for default, but there was really no other way out.

But we think that with what we are planning on the P–3 and planning on the equipment that goes in the P–3, we will have a very capable—we do have now and will continue to have a very capable ASW capability.

Relative to the A–12, that was not a dissimilar situation. We did everything that we humanly could to keep that contract going. It's the victim of many, many circumstances including a situation that existed last December, when we were analyzing the program we could not tell within a large amount of money what it was going to cost to complete the full-scale development and production. We even could not tell when the first flight would take place. We, therefore, terminated that contract, and again for default.

We are considering several alternatives for that. As you know, in the budget we submitted we included rewinging some of the A–6 aircraft so that it could operate without flight restrictions. As you know, the A–12 was intended to replace the A–6. We are considering several options including one to rewing a significantly increased number of A–6's to help fill the gap.

No. 2 would be to procure more new F–14D's. No. 3 would be to increase the number of F/A–18's which we are procuring and to go ahead with the development of the advanced version of the F/A–18, the so-called F/A–18E/F.

The budget which has been submitted includes the rewinging of 60 A–6 aircraft. The F–14D production line is producing aircraft that were appropriated before fiscal year 1991 and the final deliveries are presently scheduled for the first or second quarter of 1992.

The F/A–18 production is reduced, as you said. On the other hand, we have included funds for the development of the advanced F/A–18, the so-called F/A 18E/F.

Now beyond all that, since we still believe we have a requirement for a long-term solution to the A–6 problem, we are looking at what we would do for an advanced aircraft to fulfill that mission. And we are going back and looking at what the actual requirements are, what the mission needs are, what the specifications are. We plan to initiate a new program taking advantage of the knowledge we have gained from the A–12 program, but going back to a demonstration and validation phase to meet these new requirements.

TERMINATION DECISIONS AND DEFENSE INDUSTRIAL BASE

Senator INOUYE. By that, am I correct to assume that some of the termination decisions are still open for reconsideration?

Mr. Atwood. The termination decisions on the F–14 remanufacture is not open. None of the scenarios that I mentioned to you included any more F–14 remanufactured units. The reason for that is that the remanufacture is largely avionics and does not extend the life of the F–14 enough to justify the cost. Therefore, it is not open for discussion.

What is being considered is whether or not to extend the F–14D new manufacture for any period beyond that for which are on contract, and/or to procure more F/A–18's, in the so-called D version. And finally, whether or not to go ahead and rewing more of the A–6's.

Senator Inouye. Mr. Secretary, I am certain you will agree that up until now this subcommittee has supported, no matter how controversial, the Department's termination decisions. But at this time, I must tell you that I am a bit concerned with what your 1992 request will do to the industrial base.

For example, you will terminate virtually all of the aircraft currently manufactured by Grumman and Bell-Textron, most of the aircraft built by General Dynamics and McDonnell-Douglas, and you will be terminating the Nation's total tank production. What is going to happen to this so-called industrial base?

Mr. Atwood. I share with you, as does Secretary Cheney and the remainder of the Department of Defense, a concern for the industrial base. Let me speak, if I may, in a more philosophical manner. One of the things that is very crucial to us is our responsibility to the industrial base. And I believe very firmly that we must sponsor and pay for research and development activities which enable us to develop technologies to provide us the kind of edge in weaponry in the year 2000 and the year 2010 that we had in Desert Shield in the Middle East. More advanced, technologically, than those of potential adversaries.

But to do that, we have to invest heavily. We have an obligation to do so. And you will find that there is in our budget submission, and in our plan out through 1997, a robust research and development investment. Beyond that, I feel that we owe to our industry a clear signal as to what we can afford to buy, what we plan to buy, what we cannot afford to buy, and what we will not be buying. In other words, within the constraints of the top line and within the constraints of the demands of our Armed Forces and our weapons, we need to buy certain things and we have to buy certain things. And we can only afford to buy a limited number of things. And others we simply cannot do.

But I do not find that in DOD, or in the Government, or almost anywhere else, the wisdom which enables us to set an industrial policy between them to pick winners and losers. I think the marketplace has to determine that. And, therefore, we are setting our program out to invest very heavily in a robust research and development, new technology for the future, and to make it clear what we are going to buy and what we are not going to buy and to allow the marketplace to determine the winners.

Senator Inouye. In other words, when we send out signals, as you have indicated, and permitting the marketplace to operate as it should, it will mean notwithstanding the R&D investment. A lot of these plants are closing up, will you not say, simply on the dollars-and-cents marketplace condition?

Mr. ATWOOD. That will happen as a natural consequence. With reduced funding we cannot afford to fund these plants to keep them open. That will be true of aircraft, it will be true of tanks. We have an obligation to make sure we continue to fund the new technologies and to incorporate those new technologies and new weapons. But it would be, in my opinion, a waste of taxpayers' money just to continue to invest to keep these plants going building older and obsolete equipment.

Senator INOUYE. I have many, many other questions. I will wait my turn, once again. May I, at this time, call upon Senator Domenici?

METHODOLOGY FOR DESERT SHIELD INCREMENTAL COSTS

Senator DOMENICI. Could I just ask when you explained to the chairman using the Army force levels as an example, how you are submitting to the Congress your incremental charge cost because we were unable to reduce the Army's numbers to the numbers committed to because of Desert Shield and Desert Storm? I assume that you are trying your best to estimate for the remainder of the time that it takes to get you down to where you would have been under your previous commitment, but for the war—you are trying to estimate what that is, and that is included not in this budget, but in the incremental one in a supplemental. Is that correct?

Mr. ATWOOD. That is correct.

Senator DOMENICI. Have you done that essentially, and I assume you have, for everything within the military where you were unable to meet the target on because of the war?

Mr. ATWOOD. We have included in our supplemental first estimates at what it would be in terms of manpower for all of the services. And we have included what it would be for attrition of equipment that would be done in a very rapid way because of the war, much faster than we would normally have had.

For example, in terms of munitions: we are depleting the munitions at a rate far greater than the budget rate—or we did when the action was on. Fortunately, we had inventories that we could draw down. What we have included in our Desert Shield supplemental is the cost to replenish those to the level envisioned in the fiscal year 1991 budget. This will replenish items consumed in Desert Storm but it will not permit any inventory build above that provided for by the fiscal year 1991 appropriations unless, and this would be rare, required to fill production lines gaps created by production surges.

Senator DOMENICI. Now I—well, first let me say I forgot before I asked my question to congratulate you, Sean, on your new child. I should have done that immediately upon finding out about it.

Mr. O'KEEFE. Thank you, Senator.

Senator DOMENICI. How many does that make now?

Mr. O'KEEFE. This is the third, sir.

Senator DOMENICI. Well, I just commented that you named them all with Irish names. Do you have some Irish heritage? [Laughter.]

I thought it would be nice if you named one of them Gino. [Laughter.]

I talked to the chairman, and he thought that would be a very nice name. [Laughter.]

As I understand it, what you are saying is that that money will be appropriated in a supplemental appropriation in some way, whether it is your special account or otherwise, and be limited to the costs that would be reimbursed to the Defense Department for the incremental costs of Operations Desert Shield/Desert Storm.

Mr. ATWOOD. That is correct.

Senator DOMENICI. I gather that was difficult to do, was it not?

Mr. ATWOOD. Well, let me say this. Obviously we started our defense planning guidance studies, the threat analysis that we see happening over the next 5-year period, this started about a year ago. And culminated this summer in very quickly freezing on the threat that we sought, and therefore, embarked early this summer on the force structure and the weapons which we felt we would need as a result of this new defense planning guidance, this new approach to the defense strategy. All of this was in being before the advent of Desert Shield or Desert Storm. We continued on that path through the budget preparation this fall.

And so it is not just something that came up when we were trying to have—mixing apples and oranges all during the process because we had started for a long time on this restructuring of our Armed Forces and the changing in the type of weapons that we would have.

FISCAL YEAR 1994–95 SPENDING PROJECTIONS

Senator DOMENICI. Again, before I ask for specifics, and I have about four areas I want to ask about, let me ask with reference to multiyear budgeting, where you have a 1992 number now, both budget authority and outlays, and you have a 1993 number, both budget authority and outlays, for both 051 and the entirety of 050. Are you assuming a given number for 1994 and 1995?

Mr. ATWOOD. Yes; we are. And I will let Sean explain the steps that we took since it was only a top line and we had to apportion it.

Mr. O'KEEFE. Yes, sir. The reference you are making, of course, 1992 and 1993, the numbers are firmly placed for 050, domestic, discretionary, and international. For 1994 and 1995, the total number for Federal domestic or Federal discretionary spending having been established, there are a set of assumptions that were put into the record upon conclusion of the summit agreement that we have followed by those functional categories in budget authority. As a matter of circumstance in 1994 and 1995, the 050 outlay numbers are about $3.3 and, I believe, $2.4 billion, respectively in those 2 years, below the targets that were assumed within the overall agreement for 1994 and 1995.

So we have taken the assumptions that were contemplated, I guess, in the course of the summit negotiations, even though they are not firmly established as part of the caps as they are in 1992 and 1993.

MULTIYEAR BUDGET STABILITY

Senator DOMENICI. Mr. Secretary, I am sure the chairman is fully aware of this, but I take note for the record a statement by you—the Defense Department of the United States plans to build down to that very dramatic 3.6 percent of GNP in 1996, the lowest level in 50 years. With all of these things happening that you have listed to us and for us, with reference to the builddown, I assume that the Secretary would say that it would almost have been impossible to do this if we did not give you multiyear numbers. Is that a fair statement?

Mr. ATWOOD. I think that is one of the factors that would make it impossible to do. In other words, we needed to have continuity in the funding, continuity in the planning in order to be able to accomplish that. Obviously there are other factors upon which this draw down is dependent, in particular the world environment that we see happening.

Senator DOMENICI. Well, Mr. Secretary, I assumed that that was a given. And if that changes or was not there, we would not be in this particular ballgame.

Mr. ATWOOD. Of course.

Senator DOMENICI. So I assume that was there. But I keep hearing from the military that they are very pleased to be confronting a reduction with known numbers, without which it would have been very difficult for them to get the kind of orderly reduction that is contemplated. Is that a fair statement?

Mr. ATWOOD. It is a fair statement. The ability to do this with the known numbers that we have, and particularly with the biannual budgeting, is very important to this whole process.

BASE CLOSURES

Senator DOMENICI. OK. I want to talk about three areas very quickly. Base closures seem generally to be within the prerogative for in-depth examination of the Subcommittee on Military Construction. However, it seems to me that April 15 is a very important date in the implementation of a builddown because that is the date by which you will have completed the DOD decisionmaking process on base closures. That will occur, and I wonder if in this builddown there is a contemplation, at least, that there would be a significant reduction in military bases and the like, even though you cannot tell us what it is until April 15.

Mr. ATWOOD. There is an assumption in the budget and in the planning figures that there will be a significant draw down in a number of bases. And because of that, we have included some upfront costs. Unfortunately, you cannot close a base and immediately reap the rewards financially of it. In fact, it costs money to close a base as you spend the effort on retraining, on allowing people to go on environmental impact studies and the results of those impact studies. So that we have assumed that these bases would be closed, a significant number of them, and have incorporated some money up front that would have to be spent to accomplish it with out years accruing the savings.

R&D AND THE DEFENSE INDUSTRIAL BASE

Senator DOMENICI. With reference to research and development, you have gone to great length to respond to the chairman's questions about the industrial base. You suggested that we will have a vigorous and expanded research and development set of activities. It seemed to me you made that suggestion in response to an industrial base question as if there were some relationship between the research and development to take place and the current companies that are involved in the industrial base. That is not necessarily true, is it?

Mr. ATWOOD. I did not mean to say that any specific company would benefit. On the other hand, the companies that the chairman mentioned, the companies who manufacture the F–14 or the F/A–18—I think he mentioned General Dynamics by name, and others, Lockheed on the P–7—these are companies that are not just airplane manufacturers.

These are companies that have expanded into the avionics field, into the electronics field, into the materiels field. When one conducts research and development, I believe strongly that it is an area that we should fund industry to help participate. It is not uniquely an in-house DOD effort.

I think if we go back over the years, the great strength of the technology development has come from a troika consisting of academia, DOD, but very heavily industry. Industry has developed these technologies. I do see them participating.

Senator DOMENICI. Mr. Secretary, do you have a new framework, a new idea within which you contemplate to do this expanded R&D for the next decade or so?

Mr. ATWOOD. We are in the process of contemplating some restructuring of our internal research and development organizations, and therefore it is in that framework of restructuring our own research and development efforts in our own organization that we plan to do this.

Senator DOMENICI. Are there some significant, innovative ideas about how to use this defense R&D in a more effective way?

Mr. ATWOOD. Yes; I feel that out of Desert Storm there will be lessons learned. There is euphoria about the great success that we have had with stealth and with smart weapons, and we are putting together the technology people to learn all we can from Desert Storm.

On the other hand, there are undoubtedly lessons to be learned about things that we need to improve on that we need to develop for the future, not just for next year or the years after but for the next decade and the next two decades, and so we have people working already at trying to evaluate what those more subtle lessons are.

NON-DOD COMPONENTS OF 050 APPROPRIATION

Senator DOMENICI. Let me ask the chairman, because I am not familiar with it in the chart that was put up that showed the 051 account and others, does some other subcommittee besides this one conduct the oversight hearings on the 053 account?

Senator INOUYE. Energy.

Senator DOMENICI. So the Johnston-Hatfield Energy and Water will take that section?

Senator INOUYE. Energy has the big chunk.

Senator DOMENICI. So I will not ask about what is essentially in the $12.6 billion going up to $15.1 billion, although I assume most of it is for nuclear cleanup.

Mr. O'KEEFE. Of the 12.6, I believe about $11.5 billion, $11.8 billion, somewhere in that neighborhood, is the DOE/Defense 050 weapons piece of it. This includes new production, R&D labs, the Savannah River, Rocky Flats, et cetera, as well as the cleanup portion of it.

The balance is, I believe, spread among about nine different subcommittees here—FEMA, Selective Service, the whole nine yards.

Senator DOMENICI. The portion that is DOE, I assume where it goes up significantly in a period of builddown is probably because of the significant add-ons to the cleanup aspects within DOE?

Mr. O'KEEFE. Yes, sir; there has been a vigorous set of discussions between the Departments of Energy and Defense in terms of how the 050 pieces will be spread in order to permit the Department of Energy to pursue that, and certainly that accounts for a large portion of the increase.

STRATEGIC DEFENSE INITIATIVE

Senator DOMENICI. SDI—you mentioned SDI and gave us the numbers this year and what you expect next year, and you said something about the new director of the SDI program putting together—and I cannot quote you specifically, but it seemed to me you were saying there is a new game plan directed at limited defense versus a broader concept. Can you tell us just a little bit about when we will know the specifics of that?

Mr. ATWOOD. We put under the SDIO management the Department's overall theater missile defense activities combined with the larger response capability required for long-range ballistic missile attacks. This gives the SDIO a new charter one which is larger in scope in terms of protecting against limited strikes. One of the big breakthroughs that the Department made is the development of a concept for global protection against limited strikes, a so-called GPALS system—global protection against limited strikes.

That is a concept which was developed over a period of years and it would provide the kind of protection early on in the boost phase, or just immediately after the boost phase-type operation.

In addition, they are accelerating the Department's theater defense activities and have a concept that they have been working on which, in effect, would enhance the capabilities of things such as the Patriot missile and other more effective systems.

Senator DOMENICI. Do I understand Ambassador Cooper is coming up with an entirely new set of allocations, and that that is not finished yet?

Mr. ATWOOD. He is in the process. Ambassador Cooper, who is the head of SDI, has made a series of presentations including ones to Members of Congress about this concept.

You will recall that the original program on SDI called for a decision in the 1992 early 1993 timeframe on implementation. Because of funding constraints, and there were severe funding constraints, that capability went by the board. Fortunately the approach that has been taken now still leaves a viable program but the decision point for implementation is now in the 1995 timeframe. I am speaking now of the total system, the GPALS system.

Senator DOMENICI. My last question is maybe one that I should not make, but I will, and if the chairman has any objection to it, I certainly would understand.

DOD-CBO OUTLAY ESTIMATE DIFFERENCES

I think it is very important that the Department of Defense as soon as possible find out where the differences are between the Department's analysis of the outlay cost of this budget and CBO's. I would hope that we would know quickly what they are and get some assessment of where this goes awry.

I cannot imagine anything worse for the expected 2- and 6-year budgets that the military people have developed than to take $2.8 billion in outlays right off because of estimating differences. It seems to me to throw this thing in a terrible backward spin, and I would hope we could get it understood better soon.

That is just my assessment.

Mr. ATWOOD. Well, we certainly will. As you can tell from our discussion, this hit both Mr. O'Keefe and myself by surprise this morning.

Senator INOUYE. I can assure the Senator that we have already started our discussions with DOD to try to work out something.

ADVANCED TACTICAL FIGHTER

Mr. Secretary, I would like to now turn to the Air Force, if I may. Last year, the Defense Authorization Act prohibited the Air Force from developing the ATF in 1991. However, the Defense Appropriations Act overturned that. Do you plan to have full development of the ATF in 1991?

Mr. ATWOOD. The ATF—the advanced tactical fighter program—is one in which we have two teams competing in a demonstration-validation phase. That phase is essentially completed, and we are in the process of evaluating which team would be selected to go on. Under any circumstance that I see, our plan is to go ahead with the down-select to one of the teams later this spring, and to go ahead with the full-scale development of that program.

We did include funds in this budget submission to do just that.

RESTRICTIONS ON UNITED STATES USE OF FOREIGN BASES

Senator INOUYE. Senator Domenici touched upon the base closure problem, and although this subcommittee does not have complete jurisdiction over the question of base closures, we are interrelated when you talk about personnel and other matters, and therefore I would like to ask the following:

Which overseas installations proved essential to the buildup and sustaining of Operation Desert Shield and Desert Storm? I know that you cannot respond to that precisely at this stage, but we would like to have a complete accounting of these things.

[The information follows:]

Virtually all bases overseas were involved with Desert Shield and Desert Storm. The magnitude of operations, in terms of personnel and equipment, ended up affecting most overseas bases. Bases which were essential to the build-up and sustainment of operations were predominantly in Europe, the western Pacific and Diego Garcia. [Deleted.]

It is also important to note that we used much of NATO's infrastructure located throughout Europe to accomplish this mission.

[Deleted.] Without question, the access to U.S. controlled bases outside the United States was a critical factor in our ability to stage, deploy and support operations in the Persian Gulf.

Senator INOUYE. What restrictions, if any, did host governments place upon U.S. operations in and out of military installations within their territory? Here again, we would like to have in-depth accounting for the record of these restrictions; and third, is the Department reevaluating any of its decisions to stand down any U.S. overseas installations as a result of lessons learned in the operations in the desert?

USE OF DIEGO GARCIA FOR B–52 STRIKES

Many of our decisions may have to be made as a result of your answers, and so it would be most important.

I have another question on bases. We have spent much money and many years in building up Diego Garcia as a staging area for U.S. military operations in the gulf. If that is the case, why did we use England for the B–52 air strikes instead of Diego Garcia?

Mr. ATWOOD. Could I answer and say something on the first question, and then I will get at this one immediately.

[The information follows:]

Saudia Arabia and the other regional countries hosting U.S. deployments imposed no operational restrictions on U.S. forces operating in and out of military or civil installations in their countries. These countries were extremely cooperative and provided virtually everything requested of them.

India and Sri Lanka approved overflight clearances and provided refueling facilities for U.S. and coalition aircraft and ships. In the case of India, the improved state of our bilateral relations was the basis for the GOI approval. On 20 Feb 1990, the USG suspended refueling operations in India because political opposition to Prime Minister Shekhi was using the issue to undermine his government. The GOI has recently reinstated overflight and refueling approval.

At no time did European allies restrict U.S. operational use of military bases in their territory during Desert Shield or Desert Storm. To the contrary, the Allies went to extraordinary lengths to accommodate U.S. operational requirements, including lengthening runways, clearing civilian air traffic and providing gratis logistics support.

Mr. ATWOOD. Obviously, I think it is better if we get back to you with detailed answers to your questions. Anything I would say would be general in nature at this instant, but obviously there were many of the bases in Europe and in Southern Europe which were very beneficial, particularly in this final phase of the operation.

In answer to your question on Diego Garcia, we did use Diego Garcia for B–52's, if I am not mistaken.

Senator INOUYE. Yes; we did, but not to the extent that we utilized the British.

Mr. ATWOOD. I would need to get back to you again. Part of the situation that existed on the bases over there is that we had sufficient aircraft and sufficient armed forces over there that they were very, very crowded, and I think that may have been one of the reasons, but I need to get back to you more specifically on that.

[The information follows:]

USE OF DIEGO GARCIA FOR B-52 STRIKES

[Deleted.]

HIGH-TECHNOLOGY EXPORTS TO IRAQ

Senator INOUYE. As we wind down this war and as questions begin to be asked, one of the questions my colleagues have been rather persistent in asking this subcommittee is about what we have supplied in the area of high technology and export financing to Iraq.

For example, over the years I believe we have sold Iraq computers, gyroscopes, milling equipment, chemicals, and I think much of it, the record will show, have been diverted for military purposes.

We would like to know what DOD will be doing in policing such tool use exports and, if so, how do you hope to accomplish this?

Second, will you be carrying out any investigation into past U.S. high-technology exports to Iraq and the possible use of these technologies in weaponry—a raid against us and coalition forces?

I do not expect you to respond to us at this moment, but we would like to know about these things so that we can prepare ourselves for the future. These questions are rather persistent, as you can imagine. What have we provided them?

Mr. ATWOOD. Yes. Let me, if I may, just take a moment on that subject, because I feel that it is one of the most important outgrowths of the whole operation in Desert Shield and Desert Storm, and that is, it brings into sharp question the efficiency of the system which we have and our partners, our allies in the transfer of technology to Third World countries, if you will, perhaps without stable governments and perhaps without the stability of the instant.

As you know, in the Defense Department we work very closely as members of the interagency group who determined what technologies and what performance levels of those technologies could be sold outside.

We are caught on the horns of a dilemma in that, on the one hand, we want very much to encourage our commercial industry to take advantage of what they have to sell to other countries while at the same time we want to make sure that we protect those critical technologies or those levels of performance that allow us to have a force multiplier, whenever we get into any kind of an emergency.

Most technologies are dual purpose, and therefore most companies who are engaged using those technologies for military have a commercial application, and it is sometimes very difficult for the interagency process who then have to turn around, in particular in the COCOM countries, to convince them that yes, it is a commercial application, but it has a military application which provides us with a force multiplier. It is a very serious, detailed question. It deserves a lot of attention among us and among our other agencies.

Senator INOUYE. In bringing up this question, I want the request to show that DOD has been very responsive and very sensitive to concerns that we have expressed.

For example, about a year ago this subcommittee learned that the Department of Commerce was in the process of organizing an aerospace trade mission to Iraq, Saudi Arabia, and Egypt, in which they were trying to sell everything from small weapons to ballistic missiles, and when the subcommittee brought this matter to the attention of Secretary Cheney he very promptly called upon the Commerce Department to stop that show, and I want to at this time thank you very much, sir.

TRAINING TEMPO AND AMMUNITION SUPPLIES

In your prepared statement, you indicate that DOD intends to maintain its training tempo at approximately the same level as in fiscal year 1991. Does this imply that there are no spare parts or ammunition shortages as a result of the operation that will adversely impact upon your training plans?

Mr. ATWOOD. Obviously, we are expending things such as munitions at a very large rate, or did expend them at a very large rate. On the other hand, we feel that the inventories that we have are sufficient to continue to conduct the training exercises we previously planned, plus we intend to go through with surge production, as you will recall from our presentation on the supplemental budget, to replenish those inventories which were depleted at a very large rate.

CONSEQUENCES OF DEFENSE CUTBACKS

Senator INOUYE. Mr. Secretary, there are many in the Congress who look upon the 5-year plan and your decision to cut down costs with great satisfaction. However, at the same time we have no idea what these cuts may mean in real terms, what it would mean in terms of unemployment compensation, what it would mean in terms of welfare payments.

Have all of these real term costs been considered in the reduction program that we are studying at this time?

Mr. ATWOOD. Our position within the Defense Department has been that we contract for systems, whether they are munitions or weapons or what have you, on an individual basis. And that means that when we sign a contract with a company, they assume the responsibility for what we pay them to build up to produce the item, and to build down after they produce it. It is their responsibility for their company and for their employees after that contract has ended.

Within the Department of Defense this assumes that there is a viable industry out there with which you can do that. We do not believe that if we do something with a company, that when they are all through with it, if they have garnered no more business, that we assume a responsibility for them.

ARMY MODERNIZATION

Senator INOUYE. In your statement you claim, and I quote, "The Army's major modernization effort, begun in the early 1980's, is nearly complete."

Now, in light of the fact that Active Army and Reserve components are still driving 30-year old trucks, using 20-year-old radios, still using Sheridan tanks, 155 howitzers, Huey helicopters, M–113 armored personnel carriers, and still do not have a modern mobile air defense system, do you think that we have completed our modernization program?

Mr. ATWOOD. I think it is referring to our Active forces. And there is a continuing effort to modernize those weapons that are used by the Reserves and by the National Guard.

I would hasten to add that we never wanted to go back to where we were when I was in the Army. When I first entered the Army in World War II, I had the Enfield rifle, which was a World War I rifle. Hardly a very promising future for those people entering the Army. They need the modern weapons.

And I concur with you that we cannot cut back by not modernizing to a reasonable degree.

STATUS OF C–17 PROGRAM

Senator INOUYE. Mr. Secretary, when the Navy A–12 suffered major cost, weight, and schedule problems, you were forced to cancel the program. And we have not criticized you for that. It was your decision to make.

Now the Air Force C–17 transport aircraft is having problems in the same areas—cost, weight, and schedule. Can you assure us that it will not become another A–12?

Mr. ATWOOD. We are in the midst of a full review of the C–17. I anticipate receiving a summary report of that within the next 2-week period. The C–17 is a little different. The circumstances are a little different from those which involved the A–12.

No. 1, there is one contractor, it is not a team of contractors. And No. 2, the results of the reviews that we made before indicate, as you said, that there is an overrun in the full-scale development, but the overrun, everything that we have been able to determine to date is manageable by the company.

The overrun in the A–12 was of such a magnitude that it threatened the financial viability of the companies involved. That is not the case, apparently, with the C–17.

No. 3, the schedule, first flight schedule, was determined last April as part of a review of aircraft programs. My understanding so far, I have not had the final review of it, is that it is within a matter of plus or minus a month or 2 months of that same schedule, which is a slip schedule. But at least it has been holding constant.

The problem that I see with the C–17, and again I do not know all the details of it, is what will be the cost in production.

Senator INOUYE. I asked this question because of my concern. Incidentally, I support this program as I have indicated in the past. I think Desert Shield and Desert Storm have indicated that we do need something like the C–17. I would hope that the Department can work out some resolution of this problem so we can proceed. Otherwise, we are stuck with the old C–130's, and that is not part of modernization.

Mr. ATWOOD. I believe we must go ahead with the C–17. We have been flying, if you will pardon the expression, flying the wings off the C–141's during Desert Shield. We only built 50 of the C–5A's. The C–130, of course, has very light capability in terms of cargo capacity. So we do need the C–17's.

Senator INOUYE. Thank you.

Senator Cochran?

STATEMENT OF SENATOR COCHRAN

Senator COCHRAN. Thank you, Mr. Chairman.

Mr. Secretary, welcome again to the subcommittee. It seems like we just got through talking to you the other day, and here you are back again. And we thank you for your cooperation with the subcommittee in returning the visit with us.

At that time we were, of course, very complimentary of you and the Defense Department and our military leadership for the outstanding job that was done in organizing, planning, and executing the mission in the Persian Gulf. I still feel that we cannot say enough good things about that. We will continue to appreciate, for many, many years to come the outstanding job that all of you have done in this situation.

LESSONS LEARNED IN GULF WAR

I know that we have learned a lot of lessons as a result of the recent experiences that we have had in the Persian Gulf.

I wonder whether or not there is going to be any formal procedure developed or debriefing apparatus created in the Department of Defense to take a look at some of the specific experiences?

In terms of their impact on this year's budget, do you have any observations for us at this time as to whether or not such a review of our experiences will affect the request as submitted by the administration, which is the subject of this hearing today?

Mr. ATWOOD. We believe that the lessons learned is a subject that deserves a lot of attention. I appreciate what you are saying. There are a lot of people in the Department and, specifically, in the military who deserve a lot of credit for an outstanding job over there, including Secretary Cheney and General Powell and General Schwarzkopf and all the troops.

It is easy to be swept up in it and say, well things went so well, what can you do better. There are always things that need improvement.

And we, in particular, on our technology and our weapons are undertaking a lessons learned, not for this year necessarily, but for the next 10 years or the next 20 years.

As Secretary Cheney has said on a number of occasions, the weapons that were used over there, unfortunately, were not developed by our administration. They were developed over a period of a number of years. And a number of people in Congress and a number of people in prior administrations at DOE deserve a tremendous amount of credit. Our job is to make sure that whoever is running the Department 10 and 20 years from now does not look back and say, well those rascals sure should have understood what they were doing and changed things. And we are doing just that.

From what we have seen, there are a number of things which reinforce the direction we are going in research and development for new technology. There is no question about that. It is not just for this year, it is so that in the next decade we will see the same progress.

At this instant it is a little bit early for me to project something that might change as a result of Desert Storm because it may have been a direction that we were going anyway. With the reduced size of our services, our Armed Forces, it is all the more important that we use technology to give us a force multiplier. I think that was borne out in Desert Shield and Desert Storm. And that is the direction we have been going.

But let me not stop there. There is an awful lot that needs to be done to make sure of all that. Those studies will be ongoing.

IMPORTANCE OF CONTINUING DEFENSE INVESTMENTS

Senator COCHRAN. I have not had an opportunity, personally, to go through all of the line items in the budget request. We have a general overview that is in my mind right now.

I worry that we might not appreciate the fact that we do have to make continued investments in new technology and modernizing as we go along, even though, obviously, the performance in the Persian Gulf would lead us to be very, very confident of our ability, right now, to deal with potential acts of aggression or with acts of aggression anywhere in the world.

And I am concerned that the euphoria about the changes in Eastern Europe and the Soviet Union could lead us to maybe be overconfident about the fact that we do not need to continue to invest in new technology.

So I hope the subcommittee will understand that we do have to make available substantial amount of our appropriated dollars for that purpose. What percentage of the total we allocate to that is something we will just have to debate and discuss and consult with you on, and try to come to the correct answers.

One thing that strikes me as important, too, is the experience that we have had with specific weapons systems. In terms of outyear considerations, not this year as much, do you know of any experiences right now that would let us in on a kind of early conclusion that may have been drawn about the effectiveness of any particular weapons systems where we are maybe considering in this year's budget to buy a quantity of something that does not work very well? Do we have any kind of glimpses into our experiences that would put us on notice?

For instance, I have heard for the last several years that the Bradley fighting vehicle did not work. I was reading the Washington Post, and that is what it said basically, that there were a lot of things wrong with it. But I keep reading the reports now and apparently it was used a lot in the Persian Gulf experience. Did it work? Or did it not work? This is something that I think we need to know.

Mr. ATWOOD. I think that is a vital question. And it does not just apply to the Bradley vehicle. We have heard many questions over the years about the M–1 tank. Will the gas turbine work, particularly will it work in the desert and similar questions.

From the early indications we have, both the Bradley and the M–1 tank performed just flawlessly. Now, I want to say early indications, because there is a lot of information we need to pick up. But every indication we have to date shows that those two weapons, which were both, over the years, under great fire, particularly the gas turbine, worked well.

Senator COCHRAN. So there is nothing to your knowledge then, in this budget request, that would ask us to appropriate funds to continue to procure weapons or munitions that we have found out are not worth the money we are paying for them?

Mr. ATWOOD. I believe that to be the case. In a positive view, I think the F–117, the stealth characteristics, proved themselves out. And therefore, it gives us great confidence to go ahead with the advanced tactical fighter, the ATF and continue to go ahead with the B–2 and to look at a replacement for the A–12 program. That is in a positive vein. And there are other positive examples.

TOTAL FORCE POLICY EVALUATION

Senator COCHRAN. One thing that came to our attention during the mobilization and deployment of forces was whether or not the total force concept was a valid one in terms of the immediate deployment of National Guard forces as part of roundout brigades for Regular Army and other force divisions and units.

That seems to me to be something that ought to be reevaluated because of these experiences. None of the roundout divisions were deployed. I am not saying that they should have been. I know that people looked at that very carefully and there was a lot of controversy that swirled around the issue, very seriously, with National Guard leadership coming up here and leaning on folks to deploy those troops.

I wonder whether or not you have plans to ask somebody in the Department of Defense to take a look at this and see what the facts were and give us a report as to what your conclusions are about the facts.

Politics aside and personalities aside, I really think we ought to take a very careful and studied look at that concept to see whether or not it is valid, whether or not it is appropriate for the future, and if it needs to be modified in some way. And if so, let us talk about it and consider whatever changes might be appropriate, if any.

Mr. ATWOOD. I think that is a very valid question and something we are doing.

I want to make sure everyone understands that the Reserve Forces performed very beautifully in many specific categories. Those associated with the Air Force moved in almost immediately and did an excellent job. The medical department, the Medical Corps, the doctors and the nurses and the medical assistants did an outstanding job. The transportation handlers, those people did an excellent job.

The only question that has come up is the one that I think you are alluding to. That is, if you are talking about a combat infantry group and you have someone who has been in the Guard or in the Reserves, it is a matter that, for their security, their safety, and for the safety of the troops that they will be in combat with, that we be absolutely sure that they are in physical condition, this does take time and that they do have up-to-the-minute training and education on all of the latest weapons and that they do so as complete units.

It would be a great disservice to them and a great disservice to any of the regular forces if they were not in that shape. This is a decision that General Powell and his people have been making as we go along. But I think it is worthy to look at because we need to know how we are structuring our Reserves and how the total force policy picture will work in the future.

Senator COCHRAN. I appreciate very much your responses to my questions. I look forward to working with the Chairman and others on the subcommittee in trying to make sure that our appropriations decisions are consistent with what our needs are in terms of threats that we continue to face around the world and the challenges that we will have with the realities of our financial situation here at home.

Thank you very much for being here and for the outstanding job that you continue to do. And your running mate, there, we appreciate his continued involvement, too. Sean O'Keefe is an outstanding individual. It is always good to see him, a proud father, I understand. As he has already been congratulated, so I will not burden the record on that issue.

Thank you, Mr. Chairman.

AFTER-ACTION ANALYSIS OF GULF OPERATION

Senator INOUYE. Thank you very much. I believe all of us will agree that Operations Desert Shield and Desert Storm will have a major impact upon our decisions, on the size of the military, on military expenditure, and future projections. Therefore, it is very important that Congress receive information in the most objective manner.

I know that it is customary for the Department of Defense to prepare after-action analysis after every combat operation, and I presume you are working on that now; are you not?

Mr. ATWOOD. Yes.

Senator INOUYE. I would hope that this after-action analysis will be much broader than the ones we have received in the past, for example, after the Panama one.

We would like to know the affect training has had, for example; that technology has had; that tactics had; intelligence, for example. Why did we overestimate the Iraqis? Why did we underestimate certain other things?

We would like to know for example why the B–1 was not used. Many just assumed that the B–1 would be in the action also but were surprised that it was not. We would like to know why.

And as Senator Cochran indicated, there were many who anticipated many failures or setbacks on the part of Bradley and the M–

1A1; however, it turns out that they operated superbly. We would like to know what had happened or why it turned out that way.

If you can make it as in-depth as possible, not just emphasizing the successes, but also emphasizing some of the set-backs, it would be extremely helpful, mutually, to come forth with a bill that I think would be satisfactory to you and to the taxpayers of the United States.

I have no other questions, but just this request.

Finally, I would like to make an observation. In our meeting this morning, the word "assumption" or "assume," I believe was used at least 50 times. We make many assumptions. We assume certain things.

But I am certain, Mr. Secretary, you will agree, that in the final analysis, when this subcommittee presents its bill to the full committee and then to the Senate, we cannot go on assumptions. It will have to be on fact and on the real world.

So it would be very helpful if we can continue working together so that when the time comes we will have facts instead of assumptions.

With that, I join Senator Cochran in thanking you for the cooperation you have shown and the candor you have indicated in your answers.

We look forward to your responses to questions that we will be submitting to you, sir.

Once again, Mr. O'Keefe, congratulations on your new fatherhood.

Mr. O'KEEFE. Thank you, Mr. Chairman.

ADDITIONAL COMMITTEE QUESTIONS

[CLERK'S NOTE.—Additional questions submitted by subcommittee members, together with the Department's responses, will appear in the appendix portion of the hearings.]

SUBCOMMITTEE RECESS

Senator INOUYE. The subcommittee will stand in recess until 9 tomorrow, and at that time we will receive classified testimony from the Chairman of the Joint Chiefs of Staff, General Colin L. Powell. General Powell will present his global overview.

[Whereupon, at 10:44 a.m., Monday, March 4, the subcommittee was recessed, to reconvene at 9 a.m., Tuesday, March 5.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1992

TUESDAY, MARCH 5, 1991

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:06 a.m., in room SD–116, Dirksen Senate Office Building, Hon. Daniel K. Inouye (chairman) presiding.

Present: Senators Inouye, Hollings, Leahy, DeConcini, Bumpers, Lautenberg, Stevens, Kasten, D'Amato, Rudman, Cochran, Specter, Domenici, and Gorton.

DEPARTMENT OF DEFENSE

GLOBAL OVERVIEW

STATEMENT OF GEN. COLIN L. POWELL, USA, CHAIRMAN, JOINT CHIEFS OF STAFF

OPENING STATEMENT OF SENATOR INOUYE

Senator INOUYE. Mr. Chairman, on behalf of the subcommittee I want to welcome you to our second hearing on the fiscal year 1992 budget request and the fiscal year 1992–97 future year defense program.

I know that I speak for all when I congratulate you on a job well done and the victory that we are now enjoying in the Middle East is due in no small measure to the leadership that you have demonstrated. So you have our very, very deep appreciation.

As leader of our Nation's Armed Forces, you should be very proud of the courage and capabilities displayed by the men and women in Desert Storm. Their performance in battle exceeded our greatest expectations, and so we all share your pride. I know from my firsthand experience with the troops in the Persian Gulf of the high state of readiness, of confidence, and high morale. Their victory is the proof of their ability. They are truly among the finest young men and women our Nation has produced. I look forward to working closely with you to ensure that these brave warriors receive the recognition and honors they fully deserve. I hope they receive a warm homecoming from a very grateful Nation.

The successful prosecution of the war clearly vindicates much of the defense investment we have made during the past years. The weapons systems employed in Operation Desert Shield did work and the lives of many Americans were spared. As hostilities end, we must learn the lessons of this conflict and learn them well. We must work to build a lasting peace with the same resolve we used in prosecuting the war.

I believe we must control the flow of conventional weapons.

General Powell, the subcommittee is most interested in hearing your views about the postwar world, especially about how you will manage the continuing builddown of U.S. forces and still maintain adequate capabilities for U.S. security.

The 1992–97 future year defense program is the first chance for the Pentagon to demonstrate that its plans are an effective response to the great changes and challenges in the world today. Equally, we are anxious to learn how these plans will conform to the fiscal realities facing our country. There are many questions which must be considered as we look to the future, such as where are the most likely contingencies for which U.S. forces must be prepared, what mix of heavy and light ground forces, the types of land-based and sea-based air forces are needed to meet these challenges.

I think it might be appropriate to ask what will our allies, whoever they are, contribute.

The lessons learned from Operations Desert Shield and Storm must be examined for their impact on both the current and projected defense budgets of the United States.

Before concluding, I wish to remind all those present here that the hearing is held at the top secret level, and I am certain everyone has been cleared. Any notes should remain in this room for secure storage by the subcommittee.

We look forward to your insights on the many important defense issues facing us. But—I think all of us should know this—the ranking member of the subcommittee, Senator Stevens of Alaska, wanted very much to be here, but I think all of us will understand. His daughter, Lilly, is in a play and he wanted very much to be there. I approve of that. I think all of us would have done the same thing. So I am certain we all understand.

Welcome, sir. Any remarks any of you want to make?

Senator LAUTENBERG. Just to confirm what the chairman said.

General POWELL. Thank you, Mr. Chairman and members of the subcommittee. It is a great pleasure for me to be here with you this morning and to testify on the President's fiscal year 1992–93 submission.

I believe the ranking minority member made the right choice. I wish I had a daughter Lilly in a play today. [Laughter.]

Senator LAUTENBERG. You have. The General has a daughter on Broadway.

General POWELL. The Senator takes note of the fact that my daughter Linda is an actress in New York. I used to say starving actress, aspiring actress, but that is not the proper thing to say. We just say, "an actress in New York." It was noted in the paper recently that she was on Broadway, and when I talked to her last night it is 42d Street, and the part of Broadway she is on is closer to the East River than it is to the Great White Way.

But, nevertheless, a play in New York is a play in New York and we are very proud of her—an aside, which I assume will not be in the record. [Laughter.]

Senator LEAHY. It may be the most interesting part of the record. [Laughter.]

General POWELL. Mr. Chairman, obviously you know that I am very, very proud of what our men and women did in Operations Desert Shield and Desert Storm, and I am delighted to hear you speak to the members of your subcommittee of sharing that pride, as all Americans share in that pride.

Today, as we discuss the threat to America's security and the best strategy and force structure for dealing with those threats, we must not forget that after the money is spent, after the weapons are purchased, and after the forces are trained, it all comes down to dedicated men and women willing to put their lives on the line for their country—men and women such as you have seen on your television screen every night for the last 7 months, the men and women serving in the gulf today.

DRAMATIC CHANGES AND THE NEW WORLD ORDER

Looking back over the past 12 months, we have continued to see a period of tremendous change in the world. The international security environment is undergoing a profound transformation, due in no small measure to steadfast U.S. and allied resolve over the past 40 years. We in the Pentagon recognize that we are in a changing, not a changed, world, a world of continuing danger mixed with promise, hope mixed with uncertainty, peace, as we have seen, mixed with war. We are in a time, I believe, when America's role in world events is increasing, not decreasing, as some folks have suggested in recent months.

ROLE OF U.S. ARMED FORCES

We are in a time when our status as the leader of the free world will require us to remain engaged, to have the will and ability to lead and to lead energetically. In this new environment, the fundamental role of America's Armed Forces remains the same. It is to deter war, but, should deterrence fail, to defend the Nation's vital interests against any foe. As a great democracy, we are morally bound to an inherently defensive posture, but as the world's sole superpower in every meaning of the term, we have global interests and responsibilities that require a military force with wide-ranging capabilities—a military force second to none.

I have joked occasionally that no, we are not the policeman of the world and we should not claim to be the policeman of the world, but every time somebody gets into trouble, guess who they call to be the cop on the beat—the United States. We have worldwide interests. We have the ability to respond to these crises that come up from time to time.

EMERGING REALITIES

There is a great deal of debate about what the threats are now, what our policy should be to respond to those threats, and what our strategy should be. I have found it useful to enter into this debate by first examining what has changed and what has not change, what are the emerging realities, new things, and yet what are the remaining enduring realities, things that really have not changed. We should not think they have not changed.

The most important emerging reality, the thing that is truly new, is the demise of the cold war. Many people did not notice in the heat of Desert Storm last week one little picture buried at about page A–13 or A–14 of our newspapers. There were Marshal Yazov and Foreign Minister Bessmertnykh, sitting with their Warsaw Pact colleagues, signing an agreement that eliminated the Warsaw Pact as a military organization. It goes out of existence at the end of this month. The story was placed nowhere near the front page of our newspaper.

The Warsaw Pact that we worried about for the past 40-odd years is gone, and all of the military totems associated with the Warsaw Pact are gone. The Fulda Gap, the Berlin Wall, the Iron Curtain, the Brezhnev doctrine are all gone. The old European context that was so dangerous, yet at the same time was somewhat stable and comforting, because we could see it and understand it, that context of the past 40 years is gone.

We understand that in the Pentagon. We know we have to adjust to this new, less stable context, although less dangerous context, that we see in Europe.

Along with that first important emerging reality of the decline of Soviet power and the elimination of the Warsaw Pact is the emerging reality of declining defense budgets. It has been happening for the last 5 or 6 years, and with the cold war now ended, American and other western publics and their elected representatives are rightly expecting reductions in defense spending. We know that.

We are pleased, frankly, to have a Budget Summit Agreement which gives us some basis to plan on for the next several years, without every year fighting over the top line. There is one thing we need more than anything else in the Defense Department to do our job properly over the next several years, and that is some stability in terms of knowing exactly what amount of money the American people and the Congress are willing to provide for our common defense.

ENDURING REALITIES

Change, however, is not the only characteristic of the contemporary world scene. No matter how mesmerized some may become with the truly astonishing events of the past few years, we must never forget that many things have stayed very much the same. These are the enduring realities, and we must always remember these as we look at that which has changed.

The first important and enduring reality is that of Soviet military power. This power is at long last being reduced. This power at long last is being reshaped and reformed. But Soviet military power is hardly becoming irrelevant. You will see my prepared statement—which I will submit for the record, Mr. Chairman, with your permission—how we assess that Soviet threat now and for the foreseeable future.

But I want to emphasize that, whatever the future Soviet state may look like after all is said and done, that future Soviet state will still possess by far the strongest military force on the Eurasian land mass. It will still have millions of well-armed men in uniform, and it will still be capable of destroying the United States with strategic weapons in 30 minutes. Soviet military power will remain an enduring reality for us all.

A second enduring reality will be the continued vital interest America has across the Atlantic Ocean. We fought in Europe in two world wars and one cold war. Peace, stability, and freedom in Europe were in our interest then and are in our interest now, and will be an enduring interest in the future.

So even in the future, American support for a vibrant NATO is critical. At the same time, we have to be concerned over the new spectre of instability that looms increasingly over parts of Eastern and Central Europe and instability that looms over the Soviet Union itself. We have to watch these developments in the Soviet Union with great interest. We cannot quite tell where it will all lead. Will it turn into many republics in this great nation of 11 time zones? Will we see a federation of the Soviet Union or the commonwealth of the Soviet Union? Will the word "Soviet" even be in the name when it is all over?

We do not know. We can only watch and hope. But over time I think this nation will be less of a threat to us. But we must never consider the power of the Soviet Union irrelevant. So we have to remain engaged in NATO.

In Europe, very often when we think we have won a war, such as the cold war, there is a tendency in American political thinking to go entirely the opposite direction. "Now that it is over, let's go back to fortress America. Let's go back to theories of isolationism." I think that would be wrong. We have a vital continuing interest across the Atlantic in Europe. But Europe, as we have seen so vividly in the last 7 months, is not the only theater across the Atlantic that we have to be concerned with.

In my conceptualization of this new environment, I put the Middle East into "across the Atlantic," as well as Southwest Asia—the area of Operation Desert Storm. And this is a concept I use to make sure that we think about vital interests on other continents and we look at across the Atlantic as including Europe, the Mediterranean, the Middle East, and Southwest Asia

I also make the point that we are not bounded by one great ocean but by two great oceans, and so one of our enduring interests and enduring reality for us is the Pacific. The Pacific is an area of major interest to us. We fought two bloody wars there in the last 40 years. It is a region where nations continue to look to us for leadership, for counsel, for security. So across the Pacific, America sees its interests as another enduring reality.

And then there is the enduring reality of the unknown—of a world that continues to harbor danger, uncertainty, instability—not just across the Atlantic and across the Pacific but on every continent, in every other theater of the world. While the end of the cold war has signaled for some a dramatic improvement in the prospect for peace, security, progress, and hope, for others the end of the cold war does not change the situation. For them the world still remains a place of danger, a place of turmoil, a place of tyranny, and a place of war.

So the future geopolitical context as we see it in the Pentagon is to be happy about this new era of promise, to be pleased about the demise of the cold war, to be realistic about real cuts in defense spending, but to also recognize the continued reality of Soviet military power, to recognize the need for America to remain engaged across the Atlantic and across the Pacific, and to keep a clear-headed recognition that in this time of post-cold war euphoria the world remains a very dangerous place.

These are the driving forces that lie behind the future military needs of the United States.

When I became the Chairman 17 months ago and started thinking about taking over the job in September 1989 and preparing myself for the job, I thought I would be dealing essentially with the end of the cold war and reduced defense budgets, but essentially a new era of peace where the world would be much more stable.

I took over on October 1. That night I was involved in a coup attempt in Panama. Within a few weeks after that I was involved in using military force to help President Aquino in the Philippines. A few weeks after that I was involved in Operation Just Cause in Panama. A month or so later I was deploying forces to El Salvador, where Americans were trapped in a hotel by guerrillas. A little while later I was sending marines off the coast of Liberia to stabilize that situation and defend United States interests in Liberia. In the middle of Operation Desert Shield, suddenly in Somalia the United States Embassy was surrounded and we had to dispatch a Marine force and helicopters to go rescue our Ambassador and several hundred United States citizens. And then, finally there was Operation Desert Storm itself.

So every now and then I reflect on what happened to this era of peace that I was looking for. In the 17 months that I have been Chairman, I have been up to my you know what in little bitty wars. I see a future that has the promise of peace yet the prospect of continued conflicts of the type we have seen. So we have to square that circle and make sure that in restructuring we do not give away the capability we need to respond to the uncertainties that exist in the world—of a crisis that nobody is expecting.

MILITARY FORCE PACKAGES

Within this broad context, then, what are our military needs? What is it in the way of military power that America feels it must have to deal with the world's realities as we see them? Conceptually we are looking at four packages, backed up by four supporting capabilities.

The basic conceptual military force structuring packages are, first, strategic forces; second, Atlantic forces; third, Pacific forces; and, fourth, contingency forces. These are not units per se; they are just a conceptual way of looking at the kind of forces we had better have in this structure.

The four underlying capabilities I think we always have to focus on and make sure we have adequate investment in are transportation, space, reconstitution, and research and development.

We have these eight elements, and if we match them carefully in a balanced way with the available resources Congress will give us, we feel confident that we can meet the challenges of the world's emerging and enduring realities as we approach the 21st century.

STRATEGIC FORCES

Let me first talk about strategic forces. We need a modern strategic nuclear arsenal for the same reason we have always needed it—to continue to deter Soviet nuclear power. We will remain committed to it in the future and the President's budget supports a triad of nuclear forces. I believe that our reliance on sea-based systems will probably increase in the years ahead. I also believe strongly that our pursuit of the strategic defense initiative, as restructured by the President, must continue, and we have to, if anything, increase our efforts with respect to strategic defense.

Along with that, we will need to keep an adequate investment in fast, reliable, and survivable C^3 systems to keep pace with changes in our strategic forces. Wherever the START negotiations may take us—and, as we all know, they are in a little difficulty right now—we must make sure that our strategic forces are second to none.

I remember vividly my conversations with General Moiseyev, my counterpart, last fall when he visited and Secretary Cheney's conversation with his counterpart, Marshal Yazov. They were always anxious to tell us about how they were going to cut the production of tanks and how they were pulling back out of Central and Eastern Europe, and whenever we said, fine, but what are you doing with strategic forces, how come we see continuing modernization, no letup in any of that, they did not even answer the question. They just changed the subject.

The reason for that is simple. Their strategic nuclear forces are their crown jewels. They are their major claim to superpower status. We have got to understand that. We have got to recognize that the Soviets will continue to believe that and we have to respond accordingly to make sure that our strategic nuclear forces, our investment in defensive technologies and in a robust command and control system remains our crown jewel. We have to make the necessary investment. I think the President's budget does that.

ATLANTIC FORCES

The second force package I would like to talk about are Atlantic forces to help maintain stability and deal with contingencies on and across that broad ocean, not only in Europe but also in the Middle East. NATO and our numerous bilateral relationships will continue to be the framework within which we provide these forces. Forward military presence and reinforcement will continue to be the concepts within which we will satisfy our Atlantic force requirements.

Forward presence means strong forces on the ground in Europe, perhaps at the size of a heavy Army corps with supporting air forces, much, much less than we have now—50 to 60 percent fewer forces in Europe than we have now, but a solid force in Europe, a European force that is not just a tripwire or a garrison force but a real fighting force in place and well supported. We would have the ability to reconstitute a larger force out of the Reserves, if we have guessed wrong and the situation in the Soviet Union reverses itself totally and we find it necessary to go back to a larger force presence there.

Forward presence also means access and presence for our forces in the Middle East. As you know, in the post-Desert Storm environment we will be examining very carefully what our needs will be for security and stability in the region, and I am sure during the question-and-answer period we can go into more detail on what our post-Desert Storm requirements may be.

But for Atlantic forces, we will need presence in Europe, forward presence in the Mediterranean and Southwest Asia and in the Persian Gulf area, the ability to project power across the ocean, balanced maritime forces for sea control, to include Marine air-ground task forces afloat and ashore. This forward presence across the Atlantic must be backed up by a powerful, rapid reinforcement capability.

The way I like to explain it to my colleagues in the Pentagon and the young officers in various staff colleges is that for 40 years we have had the two largest armies in the world face to face at a border, with the most modern equipment, ready to go to war in 10 days—remember, 10 divisions in 10 days; [deleted]. For 40 years that was the context, and that is why we kept building up Europe—300,000, 310,000. The Soviets had many more than we did, seven Warsaw Pact nations seeming to be a single coherent force ready to cross the inter-German border, responding to the doctrines of Soviet maneuver warfare, where they would try to get to the channel ports within a couple of days and cut us off, west of Frankfurt, where I once commanded a corps.

And now, in a period of just a few years, those armies are no longer in contact with one another. In fact, we now have a buffer zone 600 to 800 kilometers wide, with these two armies on opposite sides. Nobody can reasonably believe in less than many, many months or a few years this kind of force could be regenerated to present the kind of threat that it has presented for the last 40 years. So it requires us all to rethink our presence in Europe as well as what we need to reconstitute the force, should we have guessed wrong.

It means, however, that we still need heavy forces. A lot of people have said, "Well, gee, now that the European base for heavy forces is gone, you can get rid of all those heavy divisions and put them into the Reserves." Wrong. We must have heavy forces in the structure, in Europe, and the ability to reintroduce from the United States, either from Active units in the United States or from Reserve units in the United States, heavy units back into Europe with a suitable time for mobilization.

And, as we have found out in Operation Desert Storm, those heavy units and that heavy force structure that we had for Europe and must maintain for Europe in the future is the same kind of force structure that you have to have if you go in harm's way in Southwest Asia. It was great to be able to send over quickly the 82d Airborne Division and a few Marine units and one tactical fighter wing to deter the Iraqi army. It was quite another matter when it came down to defeating the Iraqi army. That is when we needed heavy forces of the kind that must remain in the Active Force structure.

So across the Atlantic, as you can see, deals with Europe, Southwest Asia, because the kind of forces you need for that region are pretty much the same.

PACIFIC FORCES

As we turn to the third package, the Pacific forces, to achieve stability and deter aggression across that other great oceanic frontier, I envision somewhat different forces. These Pacific forces will not look terribly different than they do today, but with smaller components, especially on the ground.

We can reduce our forward presence in Korea and Japan quite a bit, and, as you know, in response to the Nunn-Warner legislation we already have the phase I reductions underway. I think our Pacific forces will continue to be essentially maritime, with strong and balanced fleets and task forces in the forward presence role, including powerful U.S. Marine Corps elements and some forward ground and air forces from the Army and the Air Force.

Military assistance and cooperation and interoperability with friends and allies in the region will grow even more important in the years ahead, working with all of those armies and air forces of our allies in the region. In short, our Pacific forces in the future will continue the very successful economy of force operation that they have conducted over the last 40 years.

CONTINGENCY FORCES

Contingency forces for the next enduring reality—that of the unknown, the uncertainty, the crisis nobody expects, the phone call that comes at 2 in the morning—for that kind of situation we must maintain the kind of contingency forces that we have used in Operation Desert Shield—light forces ready to go quickly, with great mobility, with the ability to get there suddenly, put the American flag in the ground, and let any aggressor know you are now fooling around with Superman and you had better stop now before we bring more forces to bear.

We have been able to use that kind of capability very effectively over the years, and as we restructure our Armed Forces we have to make sure that this kind of unit remains in the force structure at the highest possible state of readiness, not loaded down with heavy equipment, ready to go quickly—Army units, Marine Corps units, and Air Force units with the transportation capability to move them.

These, then, are the four conceptual force packages we are looking at—strategic forces second to none; forces oriented toward the Atlantic, heavy in character, requiring force projection assets, requiring sealift, prepositioned ships, RO/RO ships, with a heavy Reserve component contingent behind those Atlantic forces; Pacific forces, maritime in character, less forward presence than we have seen in the past, not that much of a Reserve component piece to those forces, an economy of force role; and then contingency forces—light, fast, ready to go on a moment's notice to deal with a crisis that no one was expecting or to get there first before you can flow the heavier forces from Atlantic and Pacific.

TRANSPORTATION CAPABILITY

In addition to these conceptual force packages, there are some underlying capabilities that we have to make sure we support in the budget. The first of those is transportation. Mr. Chairman, in the 17 months that I have been Chairman and in my previous job at commander of Forces Command and my previous job before that as National Security Advisor to the President, I have had to go into this national asset we call transportation on many occasions, not just for war, but to respond to hurricanes in South Carolina, and in the Virgin Islands, to send emergency relief aid around the world, to dispatch a force to look for a Congressman who was lost in Ethiopia, to send forces out to the great Northwest to fight forest fires.

The national asset that we have in our transportation command in terms of strategic airlift and maritime lift is something we must make sure we make a proper investment in for the future. I speak of the C–17 with respect to modernizing our airlifter fleet, and I also talk of the need to do more with respect to our sealift assets. We were able to implement Operation Desert Storm. We had some startup problems, and thus we have to make more of an investment in sealift. Congress has been pushing us in this direction, and we have $1.275 billion available to us this year, and we will shortly come up with recommendations as to how to spend that money for additional sealift.

SPACE CAPABILITY

The next capability that we have to have and make sure we do not fail to invest in is space. For communications and command and control, and especially for intelligence, surveillance, and navigation, we will need to be in space, and we will continue to need a wide variety of space systems.

The ability of the United States to use any of our four force packages will continue to depend heavily on our ability to operate freely in the high ground of space. The ability to operate in space has helped us enormously in Operations Desert Shield and Desert Storm. The ability to know what the Iraqi army was doing, [deleted] to see the results of our bomb damage assessments, [deleted] the ability through space to command and control Operations Desert Shield and Desert Storm from back here in Washington, the ability for me to walk into my office, to walk into my home and punch a single button and pick up the phone on that instrument and talk instantly to General Schwarzkopf—top secret, codeword, anything we wanted to talk about as clearly as you and I are talking here this morning—all of that comes from our ability to operate in the high ground of space. It is a major underlying capability that we have to make a proper investment in.

RECONSTRUCTION CAPABILITY

The third underlying capability is reconstitution—the ability to reconstitute forces, should that be necessary, as a hedge against the uncertainty of the future. We have to look very carefully at that. I look at that in terms of what we need to reshape and restructure our Reserve components in a sensible way, how to make an investment in our industrial base in a sensible way. We are concerned that in this drawdown we may lose some long-term defense suppliers that we have counted on over the years, and we have to look at that very, very carefully to make sure we do not wipe out our ability to reconstitute the force, should it be necessary at some point in the future for an uncertainty we do not yet see.

RESEARCH AND DEVELOPMENT CAPABILITY

The final underlying capability is the need for defense research and development. We have all fallen in love with Patriot, Stealth fighters, and M–1A1 tanks. All of that came about through proper investment in research and development activities over the years. As we get smaller, we have to make sure we keep investing in weapons that are of high quality, weapons that are at the leading edge of technology, to give us the kind of advantage over an enemy that we have enjoyed during the past few weeks in Operation Desert Storm.

Operations Desert Shield and Desert Storm gave us a foretaste of this new concept. We used contingency forces last August to get to the theater quickly and plant the American flag in the Saudi Arabian desert—Army light forces, the 82d, the Marines with their maritime prepositioning ships, which worked so well, followed up the heavier units that came from our Atlantic forces and our Pacific forces, and using bomber and tanker assets from our strategic forces—all put together with our transportation capability, using our space systems and knowing that we had properly invested in research and development.

But Desert Storm is now over. We are back to the reality of declining defense budgets, and we have to deal with that challenge. We are dealing with it in the Pentagon. I can assure you, Mr. Chairman, that my work with the Chiefs suggests to me that they know we are in a major period of reshaping and restructuring.

You will notice in Desert Storm nobody is accusing us of logrolling and service parochialism and the Army fighting the Air Force and the Navy fighting the Marine Corps. We are now a team. The Goldwater-Nichols legislation helped that. What helped it even more was the commitment to teamwork, a commitment to understanding that we all have to get smaller, and we have got to do it in a way that maximizes the contribution that each service makes to the national defense.

We are ready to do that. We are ready to cut bases. We are ready to get rid of marginal programs. We are ready to work with the Congress as we reshape our Defense Establishment for the challenges of the future. Above all, the one thing we have to make sure we do is continue to attract the very, very best GI's that we can and give them the best equipment, the best training, and make them proud of serving in uniform so if they are ever called on again to go in harm's way they will perform as splendidly as they have performed in Operation Desert Storm.

As I mentioned at the beginning, Mr. Chairman, I do have a prepared statement for the record which I would offer for your consideration.

[The statement follows:]

STATEMENT OF GEN. COLIN L. POWELL

Mr. Chairman, distinguished members of the Senate Appropriations Committee, thank you for the opportunity to testify before your Defense Subcommittee. Today, I plan to provide you with an overview of the threats our nation will face in the future and our proposed military posture and strategy to deal with those threats.

While we testify here today, American forces and our coalition allies are wrapping up a war half way around the globe. Some of our men and women are prisoners of war and some are missing in action. I give you my guarantee that every American and coalition prisoner will be returned and every MIA accounted for before we end our operations there.

I know the members of the Defense Subcommittee feel the same pride I feel in the professionalism and courage demonstrated by the men and women of our Armed Forces over the past seven months. As we discuss today the best military strategy and force structure for defending America from the threats she might face, and as we examine these things against the background of our global posture, we must never forget that, after the money is spent and the weapons purchased and the forces trained, it is the sacrifices of dedicated men and women like those serving so admirably in the Gulf, who have put their lives on the line for their country, that keep us strong and free.

Dramatic Changes and the New World Order

Looking back over the past twelve months, we have continued to see a period of tremendous change in the world, of new forces shaping the strategic landscape. The international security environment is undergoing a profound transformation, due in no small measure to steadfast US and allied resolve.

In 1989, we witnessed the first stages of the emerging new order with the upheaval in Central and Eastern Europe and the fall of the Berlin Wall, as people kept under the yoke of Communism and dominated by the Soviet Union for four decades gained their freedom. In 1990, the changes accelerated: Germany uniting, Soviet troops leaving Central and Eastern Europe as host countries held free elections, the Warsaw Pact collapsing, and the conclusion of a major arms control agreement which will reduce conventional forces in Europe. These events might never have occurred had it not been for the strength and purpose we and our allies demonstrated over the past forty-plus years.

National Security Interests and Objectives

Despite the dramatic changes in the international environment, the broad national security interests that give focus to U.S. military objectives, strategy and forces remain largely constant. These interests encompass:

- The survival of the United States as a free and independent nation, with its fundamental values intact and its institutions and people secure.
- A healthy and growing US economy to ensure opportunity for individual prosperity and resources for national endeavors at home and abroad.
- Healthy, cooperative, and politically vigorous relations with allies, friendly nations, and former adversaries.
- A stable and secure world where political and economic freedom, human rights, and democratic institutions flourish.

The Role of US Armed Forces

The fundamental role of America's armed forces remains constant: to deter war and, should deterrence fail, to defend the nation's vital interests against any potential foe. As a great democracy we are morally bound to an inherently defensive posture. As the world's sole superpower in every meaning of the term, we have global interests and responsibilities that require a military force of wide-ranging capabilities. We need these forces to:

- Deter military attack against the United States, its allies, and other countries whose interests are vital to our own; and to defeat such attack, singly or in concert with other nations, should deterrence fail.
- Protect free commerce; enhance the spread of democracy; guarantee US access to world markets, associated critical resources, air and sea lines of communication, and space; and contribute to US influence around the world.
- Contribute to regional stability through military presence, mutual security arrangements, and security assistance; and to discourage thereby, in concert with other instruments of power, policies and objectives inimical to US security interests.
- Stem the production and transit of illegal drugs and their entry into the United States.
- Help other national and international agencies combat terrorism.

Emerging and Enduring Realities

While our national and military objectives have remained relatively constant, the threat to our accomplishing those objectives has changed. So has the fiscal environment that sustains our military forces. Two emerging realities accentuate these changes.

The most important emerging reality is the end of the Cold War and a redefined and improved relationship between the United States and the Soviet Union. The old context for maintaining our force structure is gone, and our understanding of what will replace it is necessarily incomplete.

The second emerging reality is that, given the requirement to bring government spending and revenues into balance, military planners must assume that our defense budget and the resources available to us will continue to decline for the foreseeable future. However, as the Iraqi aggression against Kuwait amply demonstrates, we cannot afford to reduce our budget so quickly and so far as to harm our capability to defend our interests whenever they may be threatened. Nevertheless, reduced defense budgets, like our Cold War victory, are realities with which military leaders must deal.

Accompanying these emerging realities are important enduring realities. The first is the reality of Soviet military power. While the Soviet military threat is finally being reduced, it will hardly disappear. Notwithstanding its evolving ideology and the intentions of its leadership, the Soviet Union remains the one country in the world with the means to destroy the United States in a single devastating attack.

Even after a START Treaty is concluded and the two sides begin to reduce their strategic nuclear arsenals, the USSR will retain thousands of nuclear warheads. And Moscow continues to modernize its strategic nuclear forces as it reduces some of its older, obsolete systems.

With the ratification of the CFE Treaty, the principal threat to Western Europe -- a short-warning attack by massive Soviet conventional forces -- will have been removed. Nevertheless, whatever the future Soviet state may look like, it will still have millions of well-armed men in uniform and will remain, by far, the strongest military force on the Eurasian landmass.

The second enduring reality is America's continued vital interests across the Atlantic Ocean. All of the positive changes we have seen in Europe are a testament to the success of collective defense. Preserving a free and stable Europe will remain an enduring interest of the United States that requires our attention and our resources.

Although the prospect of a concerted military threat to Western Europe from the East has faded, continued political and economic instability in Central and Eastern Europe and the Soviet Union presents new concerns and the imperatives for new approaches to collective security.

Consequently, we and our NATO partners are conducting a thorough review of alliance strategy. The broad outlines of a new force posture are already emerging and include highly mobile military units, some of which will be restructured into multinational formations. The number of active units will be scaled back, and increasing reliance will be placed on mobilization and reconstitution.

Also across the Atlantic are the Middle East and the Persian Gulf. There, enduring obligations and regional threats to US vital interests will place continuing demands on our Armed Forces. Now that we have ejected the Iraqi Army from Kuwait, we will need to examine carefully our commitment to the region and what sort of collective security arrangement will be required to deter future threats to our friends and allies there.

A third enduring reality lies in and across the Pacific Ocean. There, the divided Korean Peninsula stands in contrast to a Europe becoming increasingly whole and free. However, the US security burden in Korea is being eased by the continuing growth of democracy, economic success, and military capability in South Korea. The continuing presence of US combat forces on the Peninsula is essential to bolster deterrence, as well as to promote the long-term prospects for a peaceful North-South dialogue. Our recent assessment of the US-Republic of Korea (ROK) security relationship demonstrated that we can make modest reductions in our force presence in Korea, as well as in Japan and elsewhere in the Pacific, and that we can initiate a gradual transition toward a partnership in which ROK forces assume the leading role on the Peninsula.

However, should deterrence fail, in-place and reinforcing US forces would still be required to blunt, reverse and defeat the type of short-warning attack that North Korea is still clearly capable of mounting.

For the Pacific region as a whole, a modest level of US military presence -- principally maritime -- will be essential to preserve stability, encourage democracy, and deter aggression.

A fourth enduring reality is the uncertain nature of world events. In the less-predictable yet increasingly important other regions of the world, the United States seeks to preserve its access to foreign markets and resources, deter regional aggressors, and promote the regional stability necessary for progress and prosperity.

From Latin America to Sub-Saharan Africa, American military men and women contribute to the unsung tasks of nation-building, security assistance, and quiet diplomacy. Performance of these tasks protects and extends political good will and commercial access to foreign markets. Success in this respect becomes increasingly critical in an era of reduced forward presence, when forces deploying from the United States are more than ever dependent upon enroute and host-nation support to ensure timely response to distant crises. And, as we all know, in a world of uncertainty, crises will arise when least expected.

Before moving to a discussion of how we plan to adapt US strategy and force structure to these emerging and enduring realities, I want to deal with several key aspects of our threat assessment.

Threat Assessment

Secretary of Defense Cheney has signed the Joint Military Net Assessment (JMNA). It is now at the printer. You should see it this week or next. Here, I will only highlight several main points in the JMNA.

The dissolution of the Warsaw Pact, as well as changes within the Soviet Union itself, will cause a lasting change in the European security environment. While the threat of premeditated Soviet aggression against NATO is extremely low, the current instability in Eastern and Central Europe and along the Soviet periphery raises new cause for concern. And we must not forget the fact that the USSR will remain one of the world's superpowers, with the military power to threaten any country in the world.

Strategic Nuclear Forces

The Soviets are carrying out a comprehensive modernization program for their strategic nuclear forces and, although they are structuring this program in anticipation of reductions under a START accord, it will result in a force that is more accurate, survivable, and reliable. The pace of this modernization program is not as rapid as previous programs in the 1970s and early 1980s, but it remains significant despite severe economic problems. The Soviets are modernizing their ICBMs, SLBMs and bombers and are developing several new types of land-based missiles that include follow-ons to the SS-24 and SS-25 and a replacement SLBM for the Typhoon submarine.

Strategic Defenses

The Soviets have spent vast sums on strategic defenses during the past decade. They have developed large, phased-array radars that can detect and track large numbers of targets and which have the potential to support missile defenses. The ABM system deployed around Moscow, which has recently been modified, provides dual-layer defensive coverage against ballistic missile attack.

The Soviets are also developing the capability for long-range defense with AWACS aircraft and interceptors. These efforts will increase the difficulty of penetration for both aircraft and cruise missiles. Failure to continue US strategic bomber modernization could cause the air-breathing leg of the US Triad to become only marginally effective.

The Soviets have continued to build deep underground bunkers and harden their missile silos. They are developing more mobile, survivable ICBM and C3 assets and are deploying fourth generation interceptors with look-down, shoot-down capabilities. Additionally, they are expected to continue their long-term commitment to R&D in strategic defense systems and space defense weaponry.

Nonstrategic Nuclear Forces (NSNF)

NSNF consist of ground-, sea-, and air-launched nuclear-capable weapons with delivery ranges of less than 5,500 kilometers. All US and Soviet intermediate-range nuclear force

(INF) missiles, with ranges between 500 and 5500 kilometers, are being eliminated under the INF Treaty. Elimination is scheduled to be completed by May 1991.

Despite the ongoing implementation of the INF Treaty and the general reductions occurring in its conventional force structure, the Soviet Union is maintaining substantial NSNF. However, unilateral withdrawal of NSNF units and nuclear warheads from former Warsaw Pact territory to the Soviet homeland has been initiated in response to the political changes in Europe. Depending on the extent of these withdrawals and other changes in their forces, Soviet land-based NSNF capability in Eastern Europe is likely to consist principally of short-range nuclear force (SNF) missiles and dual-capable aircraft (DCA).

The Soviet Union also continues to modernize its NSNF by building new surface-to-surface missiles (SSMs), fourth-generation DCA, and improved air-to-surface missiles (ASMs). The Soviet Union is the only nation to deploy nuclear torpedoes and anti-ship missiles; it also deploys nuclear depth bombs. Large numbers of modern versions of each of these weapons are deployed throughout the Soviet Navy. Despite the foregoing, the overall Soviet NSNF stockpile could decrease as a result of unilateral withdrawals or an SNF agreement.

Space Capability

The Soviet Union possesses the world's largest and most responsive space infrastructure. The Soviets will probably continue to improve their military space capabilities, but their overall space funding undoubtedly will be affected by restructuring in the Soviet economy.

US space systems are generally more sophisticated technologically and longer-lived than Soviet systems, but the Soviets are steadily improving their systems' capabilities and satellite longevity. While the number of annual space launches has decreased in the past few years, the number of operational satellites the Soviets maintain in orbit has increased.

The Soviets maintain a significant anti-satellite (ASAT) capability against low-earth-orbit and medium-earth-orbit satellites. The Soviet Union also possesses other potential ASAT capabilities: exoatmospheric ABM missiles located around Moscow and at the Sary Shagan test range; a ground-based laser at Sary Shagan that may be able to damage satellites in near-earth-orbit; and electronic warfare assets that could be used against satellites at all altitudes.

Conventional Forces

The completion of the Conventional Forces in Europe (CFE) agreement, coupled with Soviet unilateral reductions and the dissolution of the Warsaw Pact, have substantially reduced the threat of a short-warning attack on Western Europe. At the same time, the Soviet Union continues to modernize its forces. Future Soviet conventional forces will be upgraded in equipment quality and restructured, but the total standing force will be incapable of a traditional massive offensive against NATO without significant mobilization.

Third World Trends

Several Third World nations are demonstrating the technological capability and the political will to develop a nuclear weapons capability concurrent with tactical ballistic missile (TBM) development. In the near term, these developments are not a significant threat to the US homeland, but there is a threat to our forward-deployed forces and those of our allies.

By the end of this century, however, TBMs with a greater range and accuracy are likely to be deployed, and the number of countries with a nuclear capability could grow. The risk of a third world country using TBMs against US forces could be significant.

Regional Requirements and Capabilities

Europe. In Europe, the role of a unified Germany, the Soviet troop drawdown, -stability in Eastern Europe, and NATO's future are current issues. NATO's role is changing and the European community is extending its economic influence into both Eastern Europe and the Soviet Union.

Acknowledging the dramatic changes sweeping Europe, the Defense Program significantly reduces US forward presence in the region. While land-based forces are being reduced, the remaining force is still significant. This continuing presence provides an explicit commitment to the security and stability of Europe. We also plan to continue a maritime presence in the region.

Southwest Asia (SWA). The primary US strategic interest in Southwest Asia is the security of key friendly nations and access to Persian Gulf oil. The US response to the Iraqi invasion of Kuwait was facilitated by our existing presence in the region. Air, ground, and maritime deployments and pre-positioning, combined exercises, security assistance, and infrastructure -- as well as access to European and other regional bases -- enhanced our crisis response force buildup. The Joint Chiefs of Staff and the Commander in Chief of US Central Command are currently reviewing requirements for US forward presence in SWA after Operation DESERT STORM.

Pacific. As Asia moves toward increased political self-confidence and economic prosperity, US forward presence will continue to serve as a strong stabilizing counterweight to undue expansion of any regional nation's power or political assertiveness. The Defense Program provides sustained presence, represented by maritime forces throughout the region and land-based forces in Korea, Japan, the Philippines, Guam and Hawaii. As Japan and Korea move toward a leading role in their own defenses, carefully managed reductions of US personnel will be implemented. However, these forces will continue to support deterrence on the Korean peninsula while balancing Soviet and Chinese influence in the area.

Latin America. Poor economies, debt, drugs, and social inequities and dislocation will continue to plague Latin America with potential adverse impact on US long-term security interests. US land-based presence in Panama will affirm US commitment to regional stability until forces depart at the end of the decade. As long as domestic illegal drug demand continues, the interdiction of drug trafficking will remain a US focus in Latin America. Forces assigned to counter-narcotics operations may enhance US forward presence and influence.

Other Regions. Debt, poverty, fragile democracies, arms proliferation, and internecine struggles will have an increasing influence on US interests around the world. As the Third World ceases to be an East-West ideological battleground, US political interests will be focused on regional instability and conflict that might have an effect on our security and the free flow of commerce. The sudden, explosive nature of frustrated ethnic, religious, political, and social forces will continue to have an increasing impact on regional and international affairs.

Now I will turn to a discussion of US strategy and force structure.

Central Military Strategic Concepts

Our national strategy is founded on the premise that America will continue to provide the leadership needed to preserve global peace and security. Consequently, our military strategy continues to rely on the basic elements that made possible the historic success of containment and assured the favorable outcome of dozens of lesser military conflicts and missions over the past 45 years.

Deterrence. Deterrence must continue to be the motivating and organizing concept for America's armed forces. We are not an aggressor nation. We can have no other policy without destroying our values and, thus, our true strength. Deterrence demands a military establishment of global scope and great competence. To deter successfully nuclear and conventional aggression poses military challenges beyond the reach of any other nation on earth.

Power Projection. Whenever US interests are threatened, this country must have the capability to project its military power if it is needed. We must move personnel and equipment from US bases and forward deployments to the scene of the crisis quickly and in enough numbers to determine the outcome. Projecting power quickly is a demanding, complex operation. Assembling a fighting force at distant locations requires ready, mobile forces and an appropriate mix of airlift, sealift, and forward-positioned equipment stocks, as well as the capability to conduct forcible entry as required. Our capability to project power contributes greatly to deterrence, regional stability, and collective security.

Forward Presence. Over the past 40 years, the day-to-day presence of US troops has been key to averting crisis and preventing war. Forward presence provides visible deterrence, preserves regional stability, and promotes US influence and access. Forward presence can include, but is not limited to, stationed forces, rotational deployments, access and storage agreements, combined exercises, security and humanitarian assistance, port visits and military-to-military relations. We know that military forward presence will be reduced in the future. But prudent forward-basing and deployment of forces and the pre-positioning of combat and support materiel must be done to reduce the burdens of power projection.

Reconstitution. With the reduction in the Soviet threat that drove US peacetime military strength since World War II, we now confront a familiar but no less demanding challenge: the strategic concept of reconstitution. This requires us to maintain the capacity to reconstitute a large, effective defense capability, if the need should arise. Preserving this potential will require foresight in protecting the infrastructure, stockpiling critical materials, protecting the defense industrial base, investing in basic science and high-payoff technologies, and constituting Reserve units adaptable to activation as the mission dictates.

Collective Security. Forward presence is most effective when embodied in collective security arrangements. These arrangements coordinate common security interests, codify commitments, enhance combined doctrine and interoperability, and provide integrated command structures. In a future of declining defense budgets and less forward presence, we increasingly will rely on collective security arrangements to protect and further our and our allies' global interests.

Maritime and Aerospace Superiority. Control of critical sea, air and space lines of communication underwrites our other strategic concepts. Control of these lines is essential to our ability to protect global US interests and to project power, reinforce, resupply, and gain access. Maritime and aerospace superiority gives us the capability to achieve this control and provides our National Command Authorities with a wide range of options during peace, crisis, or war.

Security Assistance. Collective security can be strengthened greatly, particularly with lesser developed nations, through security assistance. Dollars invested to help friends and allies build indigenous military capabilities and to gain their confidence bring tremendous returns in helping the US to meet its regional objectives.

Arms Control. With the improvement in US-Soviet relations, arms control has become an important means of reducing the levels of nuclear and conventional arsenals. Arms control is not, however, an end in itself but rather a means to an end -- that end being providing for our national security. Through arms control agreements we seek to reduce military threats to our interests, inject greater predictability into military relationships, and channel force modernization in more stabilizing directions.

Technological Superiority. We give our military men and women the most technologically advanced weapons in the world. We rely on our qualitative superiority to counterbalance the quantitative superiority of our potential adversaries. Operation DESERT STORM demonstrated the advantages of this level of technical achievement. To maintain this level of technology, a continued, robust research and development program is essential.

Other Military Tasks

Accompanying these central strategic concepts are several related tasks:

Combating Drugs. The detection and countering of the production and trafficking of illegal drugs is a high-priority national security mission for our armed forces. The President and the Secretary of Defense have directed that we deal with this threat as a clear and present danger. We have accepted that mission and remain fully committed to achieving success. We have already come a long distance. We have established an effective communications network for Federal, state and local law enforcement agencies. We have dramatically enhanced our operational detection and monitoring capabilities. We have encouraged and supported nations that host or provide transit to drug traffickers. We have helped them develop the kind of aggressive and capable efforts we have seen demonstrated by our own agencies. That said, however, this mission will continue to require deployed, properly trained, and well- equipped forces for the foreseeable future.

Combating Terrorism. The spread of international terrorism poses a pervasive threat to the United States and to the rest of the civilized world. Deterring terrorist attacks on US and allied citizens and property and responding effectively to terrorist attacks remains a continuing mission of US armed forces. This mission calls for a military force manned, equipped and trained to respond effectively to neutralize the threat such attacks pose.

Military Force Packages

To implement our strategic concepts and to accomplish all of the missions we require of our forces, I see the continuing need for four basic military force packages, backed by four supporting capabilities. The four basic packages are Strategic forces, Atlantic forces, Pacific forces, and Contingency forces. The four basic supporting capabilities are a Transportation capability, a Space capability, a Reconstitution capability, and a Research and Development capability. If we have these forces and capabilities, balanced and matched to the available resources, I feel confident that we can meet the challenges of the world's emerging and enduring realities.

Strategic Forces

First, while the pending START Treaty is a major step toward reducing nuclear arsenals, it will not eliminate the Soviet nuclear threat. The United States will continue to need modern strategic nuclear forces to deter Soviet nuclear attack. We will remain committed to a triad of nuclear forces: land-based missiles, missile-firing submarines, and manned bomber aircraft. The makeup of that triad may shift; our reliance on sea-based systems will probably grow. We will continue to pursue the promise of anti-missile defenses through the Strategic Defense Initiative. A robust, survivable, reliable command, control, communications and intelligence system must be fielded.

The President's Budget reflects these priorities. We will scale back our strategic forces in accordance with expectations regarding completion of the START Treaty. Termination of the Trident submarine program, retirement of Minuteman II missiles and accelerated retirement of Poseidon submarines, and continued reduction of the bomber force as B-52s are retired and FB-111s are transferred to a tactical role will all take place. However, we will proceed with needed strategic modernization programs such as the Trident II missile, the B2 bomber, and the advanced cruise missile. The MX rail garrison program will be scaled back, although we will proceed through the first developmental test. Development of the small ICBM will also continue, although we have no plans for deployment at this point. We feel that these modernization efforts provide the minimum investment to maintain an adequate strategic nuclear deterrent against any potential adversary.

I remain fully committed to the President's continued emphasis on strategic defensive forces. We need to have the ability to deter an attack on the United States and to defend against an attack if deterrence fails. The restructured SDI program remains consistent with the objectives previously established by the Joint Chiefs of Staff for a Phase I system. The increased investment in protection against limited strikes and in theater defenses is also appropriate and prudent.

Atlantic Forces

Second, we need Atlantic forces to help achieve stability and protect US interests in the Atlantic region, including Europe, the Mediterranean Sea, the Middle East, and Southwest Asia. US air, land, and maritime forces must still be postured to sustain collective European security, ensure access to oil in the Persian Gulf, and to meet American commitments to the security of friends and allies in the Middle East and Southwest

Asia. NATO and our numerous bilateral relationships will continue to provide the framework within which we operate these forces. Forward presence and the ability to project power quickly will be their basic operational concepts.

In Europe itself, we will continue to rely on a forward presence consisting of mechanized and armored ground forces capable of prevailing against a similarly armed opponent; naval forces capable of establishing and maintaining sea control, while projecting power ashore; amphibious forces capable of conducting forced entry operations; and air forces that can achieve air superiority while conducting other support missions. We will also need to maintain a presence in the Mediterranean and in the post-war Persian Gulf. While remaining available to other theaters, the bulk of the nation's Reserve forces would augment and support our Atlantic forces.

The President's Budget provides for a continued forward presence across the Atlantic and for sufficient modernization to support the forces necessary to sustain that presence. Despite our expectation of a reduced Soviet threat to Europe, our modernization efforts must continue to emphasize the level of technology and the type of force structure needed to operate in a high intensity environment -- the kind of environment in which our Armed Forces fought in the Gulf War.

Pacific Forces

We will continue to need Pacific forces similar to those we have in place today across that vast region, though with smaller components, especially among our ground forces. Forward presence in the region will be primarily maritime, with a smaller number of forward-deployed air and light and heavy ground forces deployed in South Korea to deter the continued threat from North Korea, and a smaller number of Air Force and Army forces in Japan. The remaining Army and Air Force power in the Pacific would consist of reinforcements from Hawaii, Alaska, and CONUS.

The President's Budget allocates funds for procurement, military construction, and power projection that will help to equip and sustain our forces in the Pacific.

Contingency Forces

Operation JUST CAUSE, our non-combatant evacuation operations in Liberia and Somalia, and Operations DESERT SHIELD/STORM have proven the enduring requirement for Contingency forces capable of responding to unexpected and unpredictable future crises. These forces must be mobile, flexible, fast and lethal. They will be composed of rapidly deployable light, airborne, and mobile heavy Army forces, a tailored mix of Air Force, Navy, and Marine Corps units, and Special Operations Forces. They would have a small Reserve component and would draw, as necessary, from the other Forces for additional resources. Also, where appropriate, they would operate in conjunction with the forces of our friends and allies, and would have an important military assistance role. We will need light and mobile C3 systems to complement the weapons systems and platforms of these Contingency forces.

Funds allocated in the President's Budget for Special Operations Forces, on-shore and off-shore pre-positioning of equipment, rapidly deployable command and control systems, and substantial and highly effective maritime and amphibious forces, contribute to enhancing the capabilities of our Contingency forces.

Basic Military Supporting Capabilities

In addition to its basic military force packages, the United States will need four supporting capabilities: a Transportation capability, a Space capability, A Reconstitution capability, and a Research and Development capability.

The Transportation capability is crucial. The U.S. must be able to project and sustain the forward military power necessary to accomplish global missions. We require sufficient capability to move substantial quantities of men, materiel, and equipment through the air and over the sea. Pre-positioned equipment, either ashore or afloat, can ease this burden, but our strategy still requires highly capable, modern and flexible air- and sealift assets. The success of Operations DESERT SHIELD and DESERT STORM proved this beyond any shadow of doubt. The President's Budget puts a special emphasis on airlift and sealift capability through continued funding of the C- 17 aircraft, an increase in the maritime Ready Reserve Force, and a new sealift program.

Effective employment of our Strategic, Atlantic, Pacific and Contingency forces requires us to maintain an effective Space capability. Requirements for early warning, intelligence, surveillance, navigation and C3 dictate a wide variety of space systems. Increasing demands for strategic defense and treaty monitoring, as well as emerging tactical requirements, will demand ever-more effective spacecraft, as well as their supporting infrastructure. The ability of the United States to use any of its four force packages depends heavily on its ability to operate in the "High Ground" of space. The MILSTAR satellite program keeps us moving ahead in Space, so in order to preserve this vital program we have carefully restructured it to reduce costs. We feel the resulting program will support tactical and strategic needs effectively.

Our forces must also be supported by a broad and enduring foundation of industrialization, mobilization and sustainment to allow us to rebuild and regenerate new forces if we should see a reversal of favorable trends in the Soviet Union. In the near-term, we need to retain the option of a relatively rapid Reconstitution capability. Over the long-term, the generation of new forces will require prior investments in critical technologies, supporting capabilities (such as keeping the Selective Service System in good order) and weapon systems. This ability to rebuild, made explicit in our defense policy, will be an important element in our ability to deter aggression.

To help provide for reconstitution, the President's Budget envisions certain reserve forces being maintained in cadre status. These units would have greatly reduced manpower and training but the equipment to facilitate an efficient transition to full strength if needed. We currently plan for two cadre divisions in the Army and creation of a new status for a number of Navy frigates.

Beyond the requirement for a reconstitution capability is the compelling need for research into and development of the technologies, applications and systems of the future. Since World War II, the United States has relied on its technological edge to offset the quantitative advantages of potential adversaries and we must continue vital R&D, or risk losing that edge.

After inflation, FY 93 RDT&E Budget Authority will be 10 percent above FY 91 levels. Department of Defense Technology Base spending of 3.9 billion dollars in FY 92 and 4.0 billion dollars in FY 93 will emphasize high performance computing and improved materials for electronics, gas turbine engines, and airframe components. All of this spending, and more, is aimed at preserving the technological edge of America's Armed Forces.

I have described for you in rough outline our concept of enduring and emerging realities, and how these realities drive our national and military objectives, future force packages and supporting capabilities. Our operations in the Persian Gulf since last August have largely validated this concept.

When Iraq suddenly and brutally invaded Kuwait, Operation DESERT SHIELD demonstrated the importance of having forces forward-deployed -- in this case a naval surface combatant task force and a nearby carrier battle group. In our new concept, these presence forces would be part of our Atlantic forces.

We also witnessed the importance of having sufficient airlift and maritime prepositioning assets to deploy quickly the air superiority air forces and the light ground forces needed in the crisis area -- forces that in our new concept would come from our Contingency forces.

Then, as fighter aircraft and light ground units arrived in Saudi Arabia, we saw the initial deployments of attack aircraft, US Marine Corps amphibious units, and more naval forces. These type forces might come from any of our new force packages, regional or contingency.

US Army heavy ground forces and additional Air Force, Navy and Marine Corps units followed rapidly. Reserve and National Guard forces augmented operations from the very start but played heavily as this phase of the deployment unfolded. In our new concept, most of these forces would constitute the heart of our Atlantic forces. All of these forces were supported by very capable sealift, airlift, and pre-positioned forces, and by command, control and communications and other systems in Space.

Our technological edge and past investment in research and development gave us the wherewithal to keep these forces flowing and sustained until the defense of Saudi Arabia was assured, and until our build-up in the region presented to the President the force options he felt necessary. The brilliant success of Operation DESERT STORM has demonstrated how vital all this great effort was.

Operation DESERT STORM

At midnight (EST) on 27 February, at the direction of the President, US forces ceased offensive actions in Operation DESERT STORM. Six weeks after offensive operations began, and only 100 hours into our ground campaign, our coalition offensive came to a halt.

The result is now known to the world -- Iraq's army has been defeated overwhelmingly by a coalition of forces led by the US. The numbers speak for themselves. Not a single coalition aircraft was lost in air-to-air combat. We destroyed or captured over 3,300 Iraqi tanks while losing only a handful of our own. Through our strategic air campaign, we virtually eliminated Iraq's ability to develop and produce chemical, biological and nuclear weapons and the missiles and artillery to fire them.

Of the forty-two Iraqi divisions that occupied Kuwait or stood arrayed along Kuwait's borders in Southern Iraq, every one was destroyed or rendered combat ineffective. In the mad dash across the Tigris River last Wednesday and Thursday, some Iraqi soldiers were able to escape with their combat equipment, but they no longer exist as effective fighting units. While we their development program was completed. The stand-off land attack missile (SLAM), the Joint Surveillance and Target Attack Radar System (JSTARS), and the Army Tactical Missile System (ATACMS) were all used for the first time during DESERT STORM, and all performed extremely well.

We also demonstrated, at a marginal additional investment, how we can reap tremendous benefit from very old, but still capable systems. Decades-old B-52, C- 141, and C-5A aircraft contributed substantially to the war effort. The Patriot missile, first developed in the mid-1960s as a weapon to defeat aircraft, was upgraded in recent years, at an additional cost of about $200 million above the $12 billion total system cost, to attack tactical ballistic missiles. The antimissile version uses the same launchers, missiles and infrastructure as the earlier one, but adds a significant new capability, as anyone living in Riyadh, Haifa, or Tel Aviv will tell you. Extending the mission or effectiveness of proven weapons systems through low-cost improvements is another way we ensure that American taxpayers are getting their money's worth.

Priorities in the 1992-93 Defense Budget

We all recognize that fiscal realities will impose limits on our requests. To arrive at what is feasible requires that we establish priorities for funding. The lessons of both ancient and recent history establish my first priority -people. Men and women, active and reserve, of the type and spirit that we are fortunate to have in our Armed Forces today, are my most fervent wish. This will require a conscious commitment from the Congress to provide for the fundamental needs of those whom we ask to sacrifice so much.

Lessons learned from Operations DESERT SHIELD/STORM, JUST CAUSE, and other recent experiences influence the second budget priority -- power projection and mobility. Deterrence is only credible if we possess a robust means of power projection and the mobility to deploy and sustain our forces.

All of you who have visited our soldiers, sailors, airmen, Marines, and Coast Guardsmen recognize the importance of my third priority -- to maintain the force quality that has proved to be our most potent weapon in DESERT STORM. A quality force is not cheap, but it is far less expensive than the alternative.

When we attract qualified people to our armed forces, the job is only half done. The other half is maintaining readiness. Without constant readiness, the quality of our forces deteriorates rapidly.

SUMMARY

The war in the Middle East has ended and Kuwait is again free. As President Bush said in November, all of us can now get on with the business of writing the rules of the post-Cold War world.

The disappearance of the Cold War, the powerful movement toward freedom and democracy, the irresistible call to capitalism and free markets, all of these things, I believe, are progress. So operating in this new era promises to be exciting and challenging.

Crafting national security for this new era is a daunting challenge in itself. While remaining generally upbeat, fiscal constraints, uncertainty about the Soviet Union, proliferation of weapons of mass destruction, fear of state-sponsored terrorism, and the prospect of another Saddam Hussein unleashing wanton aggression on the world should give us all pause.

continue to have sporadic instances of Iraqi troops who, cut off from their commanders, have fired on coalition forces, by and large, hostilities have ceased.

General Schwarzkopf met with Iraqi military commanders this past Sunday and they agreed on certain conditions necessary before any formal ceasefire can be reached. Their meeting went smoothly; the Iraqis have agreed to meet the requirements for the continued cessation of hostilities, as outlined by the President on 27 February. They agreed on the immediate return of POWs and remains, under the auspices of the International Committee of the Red Cross, and a detailed accounting of any MIAs. The Iraqis also agreed to assist us in locating and removing all mines in Kuwait and international waters. We also informed the Iraqis that upon the signing of a formal ceasefire, but not before, all coalition forces will be drawn back from Iraqi territory we currently occupy. If Iraq does not fully comply with our conditions for ceasing hostilities, coalition forces remain fully prepared to resume offensive operations at a moment's notice if so directed.

In his press briefing last Wednesday, General Schwarzkopf did a superb job of outlining the campaign plan -- a plan carried out flawlessly by US and other coalition forces. Let me simply reiterate: from day one, our objective remained constant, to eject Iraqi forces from Kuwait. We designed a phased campaign to take advantage of our strengths and our opponent's weaknesses in a manner that would hold American and allied casualties to a minimum. It was a single, coherent combined campaign using air, sea and land forces to maximum effectiveness.

Throughout its execution, our campaign was also designed to minimize civilian casualties and damage. The guidance that our pilots operated under was to attack only military targets. They went to considerable lengths to avoid striking civilian targets, as well as religious and archaeological sites. Last week we provided photographic evidence to the Iraqi people and the world that, despite allegations by Iraqi authorities, the holy shrines at Najaf and Karbala are intact and undamaged. There could be no more credible testimony to the success of our targeting policy than the fact that Iraqi soldiers were seeking shelter in civilian surroundings because they knew we were avoiding such areas.

This policy stood in sharp contrast to the policy of Saddam Hussein who, with his inaccurate SCUD missiles, almost always attacked civilian areas. Now that we have retaken Kuwait, we are also better able to see the full extent of the destruction he has heaped upon that nation.

Our policy never contemplated conquering Iraq even though at the end our forces were positioned to march on Baghdad virtually without opposition. Nor do we have any quarrel with the Iraqi people. We hope a regime will emerge in Baghdad that is committed to living in peace with its neighbors.

Let me make several additional points about the conduct of Operation DESERT STORM:

First, I must again pay tribute to the brave, dedicated men and women of our armed forces who defended our freedom and our interests. I cannot say enough about the courage and skill which they have displayed in carrying out the mission given to them by their Commander-in-Chief.

Secondly, I wish to point out once again that, this was not the US versus Iraq but Iraq against the world. From start to finish, Operation DESERT STORM was a coalition effort.

Countries participating in air or ground offensive operations included the United States, Saudi Arabia, Kuwait, the United Kingdom, France, Egypt, Syria, the United Arab Emirates, Bahrain, Qatar, Oman, Canada and Italy. Other countries, including Australia, Pakistan, Greece, Senegal, Spain, Belgium, the Netherlands, Czechoslovakia, Bangladesh, Morocco, Argentina, Denmark, Germany, Hungary, New Zealand, Niger, Norway, and South Korea contributed additional ground units or naval forces. Still others, such as Turkey and Japan, contributed indirectly through financial support or by allowing access to critical bases and facilities.

Thirdly, our decade-long investment in training, readiness, equipment and, above all, people, has paid off. There has been some heavy criticism in recent years of the weapons we purchase for our troops, and accusations that many of the weapons are too technologically sophisticated to perform well in actual combat. Before this conflict began, armchair strategists informed the public that many of our systems would not stand up under operational conditions. Yet every American who has watched television in the past several weeks knows that these pundits were wrong.

Other critics suggested that our weapons, designed at the "high end" of the technological spectrum to counter the Soviet threat, were not suitable for the "low end" regional threats we would more likely face in the future. The experience of DESERT STORM has proven them wrong here as well. The "high end" of technology clearly excelled in the Gulf war.

Let me give you some examples:

- The sea-launched Tomahawk land-attack cruise missile (TLAM) was used for the first time in combat. Some 300 were launched, by both surface ships and submarines, against some of the highest priority Iraqi targets, including command and control and nuclear, biological and chemical facilities. This system worked almost flawlessly, with a near perfect launch rate, and virtually all of those launched struck their target with high accuracy and effectiveness.
- The F-117 aircraft was enormously effective, able to attack heavily defended targets without warning and deliver its precision-guided munitions (PGMs) with pin-point accuracy. Air Force F-15E aircraft, using the LANTIRN system, achieved a level of effectiveness similar to the F-117. This combination of advanced aircraft and PGMs allowed us to accomplish, with only a few weapons per target, what would have taken a massive effort during the Vietnam War.
- In air-to-air combat, we destroyed over 40 Iraqi aircraft and they killed none of ours. After more than 11 0,000 sorties against one of the most sophisticated air defenses in the world, we experienced an attrition rate of about one in 1,700 sorties -- a rate unparalleled in history and well below comparable experience in World War II or the Vietnam War. This was due not only to the superiority of our weapons, but also to the superior training and skill of our pilots.
- The Apache Helicopter, the M-1 Abrams tank, and the M-2 Bradley Infantry Fighting Vehicle proved that their speed, agility, firepower and mobility are superior to anything on the battlefield.
- Other new weapons systems were introduced into the theater as quickly as we could field them, in some cases even before

But I am confident, because the challenge is also an opportunity. When our country is blessed with the kind of young men and women that are now serving and sacrificing in the Persian Gulf, how can we look at it in any other way? The answer is in those men and women. And the prospect of sending our sons and daughters into harm's way without the best protection, most realistic training, and fundamental means of achieving victory is unacceptable to us all. We must insure everyone understands what it means to have. Armed Forces second to none and we must fight to keep them that way.

The Congress should be proud of the role that it has played in helping our Armed Forces become the best we have ever fielded. Because they are the best, they have just completed a remarkable feat of arms in the Gulf, one that will go into the history books. I will continue to give you my most dedicated effort to insure nothing happens in the future to destroy this magnificent military.

Senator INOUYE. Thank you very much, Mr. Chairman. I have an opening statement from Senator Kasten that I would like to put in the record at this point.

[The statement follows:]

STATEMENT OF SENATOR KASTEN

General Powell, welcome to the hearings. I want to give you and General Schwartzkopf and the entire military my heartiest congratulations for just an unbelievably brilliant performance in the planning and operation of the Persian Gulf war. At the start of the war, no one could have predicted the accomplishments which were achieved, and achieved in such a relatively short period of time. I commend you and everyone in the military for their wonderful deeds.

Also, yesterday, I received word that our troops in Egypt will receive tax privileges. These men and women are not located in the Persian Gulf Peninsula. Yet, in most cases, they did and continue to do the same job as our troops in Saudi Arabia. The people sent to Egypt have deserved these benefits all along. I appreciate your help on this effort.

Senator INOUYE. Before we proceed, I would like to observe that we have an extraordinary turnout today. I hope that all of us will discipline ourselves and limit our first round of questions to 10 minutes, and I am certain the general will stay with us as long as he can and we can have two or three rounds.

MILITARY FORCE PACKAGES CONCEPT

General, I would like to use my first round on your military force package concept. Am I to assume that this concept has been approved by the Chiefs?

General POWELL. Yes.

Senator INOUYE. It will be implemented?

General POWELL. Yes; the Chiefs and I have discussed it a great deal. It is a concept. There are some people who are trying to convert it into a new unified command plan. It is not that yet. But it is a conceptual way of looking at the forces and it has the support of the President and the support of the Secretary and the support of the Chiefs.

Senator INOUYE. So you will have a change in CINC's all over the world?

General POWELL. At the moment all of the CINC's who are currently holding their jobs can fit within the concept. If you look at Atlantic forces, at the moment the CINC's that I would put under the framework of Atlantic forces are the CINC/EUR, General Galvin; Admiral Edny, the CINC/LANT, and CINC/LANT also serves as the Supreme Allied Commander/Atlantic; and General Schwarzkopf, CINC/CENT—three major commanders of unified commands that have responsibilities within the Atlantic region as I have defined it. So it does not lead immediately to the elimination of specific headquarters or CINC's.

In due course, however, the Chiefs and I have discussed our overall command structure. As we take the force down 25 to 30 percent, we cannot maintain all the headquarters we have. So in due course this may serve as a framework by which we start to draw down our headquarters structure. But right now it is not for that purpose.

Senator INOUYE. When you finally achieve the moment when you have this concept put into reality, you will have a supreme commander over the Atlantic forces, over the Pacific forces, contingency, and strategic forces?

General POWELL. I am not that far along in thinking it through, Senator. I think we are some time away from being able to reduce our headquarters structure that drastically.

Senator INOUYE. We are not wiping out CENTCOM right now?

General POWELL. No; absolutely not. But there is going to come a time—and it is not this year because we still have a number of obligations, particularly to NATO, where I do not have a free hand to do what I might want to do otherwise with respect to headquarters—but I am just pointing in the direction that as the force goes down in size and as we start to eliminate headquarters, we have to look at them in the context of these four force packages and what really is required.

Senator INOUYE. In your Atlantic forces concept, don't you think that you are going to be too heavy on Europe, with a Euro focus?

General POWELL. I do not think so, Senator. We are coming down from a strength of over 300,000 in Europe probably to something in the neighborhood of less than 150,000, and I do not have a precise number. It might be a little bit less than that. That is a major reduction. We do not want to do it too precipitously, and at the same time I do not want the Europeans to think that we have suddenly lost all interest because of Desert Shield/Desert Storm, that we no longer have any interest in Europe. I think that would not be very helpful.

So I believe that NATO will continue to play an important role in the future and for us to be able to play an important role in NATO I think we have to remain very much engaged in the NATO headquarters structure and very much engaged with actual forces on the ground.

As you know, General Galvin, working with his NATO colleagues, is coming up with a variety of concepts for multinational corps, where U.S. units would be part of a corps commanded by other NATO commanders and other NATO forces would be part of the U.S. corps as a way of making sure we remain fully engaged in Europe.

Europe is going through a period of turmoil, I guess is a good word for it right now. A lot of going on in the Central European countries and a lot is going on in the Soviet Union. And what I would hate to see is NATO sort of declare total victory, and all of you Yanks can go home and some new pillar emerge as substitutes for NATO. But for us to remain engaged in NATO we need to show that it is very much in our mind, Europe remains very much in our mind, and that beyond that we are keeping forces in Europe to demonstrate our continued commitment.

Senator INOUYE. Do you believe they will still welcome that?

General POWELL. Yes, sir; very much so.

Senator INOUYE. In your description of your Pacific package you used the words "primarily maritime," and "light" forces. Does that mean you are going to cut down the Army presence there?

General POWELL. No plans to do that except for the reductions we have planned in Korea and Japan. The division we have in Hawaii, there are no plans for eliminating. We also, of course, have a division in Alaska. I must say candidly, however, that, as you know, the Army is going down to 12 Active divisions and it is going to be tough to get down there. But that is all we are going to be able to afford, and which divisions the Army will, in the final analysis, decide to eliminate still remains to be seen.

The 25th Division in Hawaii, for example, I more and more see them being used for bilateral training exercises with all the many Pacific armies out there. They are doing a lot of that. Fred Gordon, General Gordon, and I expect to see a lot more of that. But it is principally a maritime theater and as you begin to shape where you are going to draw down, you are more inclined, frankly, to preserve Marine force structure in the Pacific than some Army force structure, but this does not translate into the elimination of Pacific divisions that are currently in the Pacific.

There will still be a 2d Division in Korea and the 25th in Hawaii.

Senator INOUYE. Am I to translate your descriptions to mean that you are not too concerned about the potential trouble spots on the Korean Peninsula, the fact that we cannot consistently rely upon the Japanese instability in the Philippines? These things do not concern you?

General POWELL. Oh, they obviously do, Senator. In Korea, however, we believe the Koreans can do a lot more for their own defense. As you know, we have adopted the concept of moving from a leading to a supporting role and encouraging the Koreans to take on more of the defensive role that we have been performing for years and let our role become more one of supporting them with air forces and intelligence as opposed to expecting us to provide major ground forces if a conflict happened again in Korea.

I think Japan is making a good investment in its own defense. I think we can trim the size of our contingent in Japan. The Philippine instability is a problem for all of us. Right now we are engaged in very serious negotiations with respect to our base structure there. But I think the force level that will be maintained in the Pacific theater will be adequate to deal with these contingencies, as I currently see them, even after the drawdown.

Senator INOUYE. Before I call on Senator Specter, I would like to note that all of your ideas and training worked out beautifully. Your tactics were impeccable. The technology is in now, but I think what you noted in closing your statement was most impressive—the fact that our services were able to work together and to add to that the fact that nations were able to work together. We did not have an Eisenhower-Montgomery situation or something like that. I commend you, sir.

General POWELL. Thank you.

Senator INOUYE. Senator Specter.

Senator RUDMAN. If Senator Specter would yield, I just want to offer my apologies to my dear friend, General Powell, but Senator Hollings and I are now about to start another hearing for another committee, so we have to leave. But I am sure there are no questions I might ask——

Senator INOUYE. You can ask a few questions.

Senator RUDMAN. I really do not have any that will not be asked by my colleagues, I am sure. It was an excellent presentation. I just want to apologize for not being here for the rest of the hearing.

General POWELL. Thank you, my good friend.

Senator INOUYE. Senator Specter.

Senator SPECTER. General Powell, there is a great sense of accomplishment, and congratulations for you and all the Armed Forces. When you and Secretary Cheney came into S–407 last week and had a standing ovation, I do not know that that has ever happened before. I asked some of my senior colleagues, and they could not recall it.

As most of my colleagues do, I travel on Mondays. There is a great sense of accomplishment in my State and I think that is across the country, and more people are focusing on the issues of the world as a result of being so heavily involved in watching the events of the gulf war. So it is a very unique time in our Nation's history.

When you comment about liking the fact that the budget has been set for the next few years, the question arises in my mind as to the adequacy of that budget, which was set last year, before we saw the serious problems of the Soviet Union and also of the gulf war. I know that General Scowcroft said on the Brinkley show on Sunday that had the gulf war arisen 2 years down the road on a reduced budget that he doubted the result would have been the same.

ADEQUACY OF DEFENSE BUDGET

So my question to you is, is that projected budget for the next several years on a reduced path adequate?

General POWELL. I would like to see a higher budget, no question about that. My comment earlier was that if you cannot have a higher budget, at least tell me what I am going to have over the next several years so we can make sensible investment choices, as opposed to the President's submission and then you get a bunch of different marks in the course of the year, and then the summit comes along and drops you lower and you cannot plan on that basis.

At the levels that have been agreed to in the budget summit agreement of last year, we are going to have to take out a lot of force structure. As you know, the Navy will be going down to less than 450 ships. The Army will be getting rid of up to one-third of its Active divisions. The Air Force will be reducing its force structure in terms of the number of wings. As you make that reduction, you increase risk.

I think it is an acceptable level of risk at this new budget level. The force structure we have designed I think is the minimum force structure. We call it the base force below which we should not go. If we were to lose more dollars and have to take out more divisions or more Marine force structure and more tactical fighter wings or more ships, I would scream bloody murder and say to the President that we are below the minimum and the Nation is at grave risk by taking out any more force structure.

Anything you can buy me above that is less risk. General Scowcroft was correct. Two, three, four, five years from now, we could not do Desert Shield/Desert Storm the way we have done it over the last 6 or 7 months. It would have taken much longer to get the forces there, and we would not have had the kind of flexibility that we had this time. I relied heavily on Europe for forces. Europe was the rear theater, we had ammo stocks from Europe. I got equipment from Europe. I got a whole corps from Europe and still left a corps there.

Three years from now, there will not be two corps in Europe, and it will be much more difficult to take that kind of force structure out of Europe. So we were very fortunate that a major drawdown had not occurred at the time that Desert Shield/Desert Storm came along.

But I believe that the force structure we will have after we execute the budget for the next several years is the minimum force structure. It is the base force structure, but I think it is a structure that will be adequate to the threats as I see them. As General Scowcroft has said and Secretary Cheney has said on a number of occasions, we have got to watch carefully because if the world does not turn out the way we hope it will, we may have to stop this decline, take an off ramp.

EUROPEAN STABILITY AND DANGER

Senator SPECTER. Chairman Powell, you used the terms, referring to Europe as "less stable and less dangerous." I would be interested to hear you amplify about your conclusion of less dangerous, perhaps in the context of your comment of less stable. I can understand a conclusion of less dangerous as you have described the Soviet army being pulled back, but I was just struck by the juxtaposition and combination of less stable and less dangerous. I would have thought some concern would have arisen on the question of greater danger as a result of less stability.

General POWELL. The reason I think it is less dangerous is that, first you see a reduction in the size of Soviet forces—500,000 announced by Gorbachev, and they are talking about another 500,000; the CFE Treaty that has been signed, although we may have trouble ratifying it without some additional negotiations with the Soviets. The Warsaw Pact has collapsed, so there is less danger of the kind of conventional world war that might lead to nuclear war that we have worried about for so many years.

But at the same time there are all kind of regional instabilities [Deleted.] Clearly, the Soviet Union is showing signs of fractionation. We do have a unified Germany, however. Each of the other former Warsaw Pact nations is going through its own process of transition. So there is lack of stability in all that until we see how all of that sorts out.

But I am not sure that that lack of stability necessarily makes it more dangerous for us in a military sense. All the instability, all the fracturing you see makes it less likely that that which used to be a very cohesive force presents the same kind of threat to the world in terms of the launching of World War III.

And what our military requirements are in that kind of environment are very different than they were in the old environment of a massive Soviet army parked at the border. So it is interesting. It was a dangerous world before, but it was a danger that everybody could see and understood, and in that danger there was a certain degree of stability—something you could plan on—the Warsaw Pact and a single kind of Soviet policy over the years. That is all gone, less stable, but I am not sure it is more dangerous in terms of drawing the United States into a world war with the Soviet Union.

Senator SPECTER. Mr. Chairman, I am not going to take my full 10 minutes now, but I am going to come back, as I said.

General Powell, you expect to be here a good part of the morning?

General POWELL. I am at the Chairman's pleasure.

Senator SPECTER. We all have these juggling responsibilities. I have to be ranking at Labor, Health and Human Services, and others, but I have quite a number of other questions I would like to have an opportunity to ask, and I will return in about an hour. Thank you very much.

Senator INOUYE. I believe Senator D'Amato wants to make a short statement before I recognize Senator Lautenberg.

Senator LAUTENBERG. Mr. Chairman, in fairness——

Senator D'AMATO. Mr. Chairman, I was just going to say, if I might, to my colleague across the river that I am not going to be able to stay. I have a not uncommon other committee, just as my colleagues do.

But, Chairman Powell, your presentation has been nothing short of marvelous. You have given us a real overview, a real balance, and we are very proud of you. I came back from Kuwait. The troops have done a marvelous job, and the great respect that the people of Kuwait have for them is incredible. As I say, they stop traffic just to hug them, kiss them. I just wanted to let you know.

General POWELL. Thank you.

Senator D'AMATO. We appreciate your great efforts.

General POWELL. Thank you, Senator.

Senator D'AMATO. I thank my colleague.

Senator INOUYE. Senator Lautenberg.

Senator LAUTENBERG. Thank you very much. There is some hugging and kissing that goes on in New York, but they do not let go. [Laughter.]

General, I want you to know something. You do not have to be a Republican to admire and like General Powell and General Schwarzkopf, who, by the way, has New Jersey roots. This is kind of a mid-Atlantic function from New York and New Jersey here, and we join in saluting you and your comrades in arms for a job well done that will go down in history as one of America's finest military moments. We commend you and we hope that, even though in your tenure you have managed to get us in a lot of trouble, you just recited all of the incidents since you took over, we hope that you will not have to concern yourself about the direction of another major conflict.

BASING OF AIRPOWER

As a result of the lessons learned in the Persian Gulf is there likely to be a strategic reevaluation of the types of force that we need? I know you touched it in your comments, but when I look at the distance that the B–52's had to travel and see the shrinking of base opportunities around the world, I wonder what we have to do as a consequence of this action to make sure that we have the air power. It is very obvious that the air power in this war was a most decisive factor—not exclusive but most decisive. How do we position it if we continue to reduce the number of carrier groups and we continue to lose land bases? What do we do about having to mount an American force or a coalition force like the one we just had in the future?

General POWELL. A very good question, Senator. We have to make sure that we do not allow our base structure to totally collapse on us. In this case, we were able to call on allies during the course of the crisis who were willing to allow us to use some forward bases, such as in England and in Spain and elsewhere.

Senator LAUTENBERG. Spain did?

General POWELL. Yes; Spain was absolutely indispensable to the deployment as well as to the subsequent support of the B–52 operation.

Senator LAUTENBERG. But everything in Spain, in this classified room, had to be done with a wink of the eye?

General POWELL. It was not quite that bad. We were able to call the Spanish, tell them what our requirements were and get a prompt response.

Senator LAUTENBERG. But they had to waive an agreement.

General POWELL. They had to agree. They essentially were asked to do things that were not part of the agreement. That is why we also think facilities such as Crotone are important—a very controversial issue to build that new base at Crotone. Crotone would have been very useful if we had had it during the course of this conflict. We do not want to get rid of aircraft carriers, but the budget dollars are such that we have to take down some of our carrier structure.

But I think we will still be able to have a robust fleet available to us, even at the 12- or 13-carrier level, that would support our interests in the future. So we have got to keep fighting for overseas bases and we have got to make sure that we do not simply run away from Europe, run away from NATO. That is the point I was trying to make earlier. None of our friends over there are anxious to see us run away either.

Senator LAUTENBERG. I would like to ask you this, and I am one who has been supportive of reduced budgets and trying to make the best out of the dollars we spend, as I know you are, and others. But we have been upset, disappointed with cost overruns in the past, et cetera—all the abuses that took place either intentionally or accidentally or mismanagement—call it what you will.

BASE CLOSURES FOLLOWING DESERT STORM

But as we now look at the base closing proposals, might there be a reevaluation on your part and the Secretary of Defense in terms of what functions those bases performed during this crisis? Obviously I would look at a place like Fort Dix, which is a principal base, as far as I am concerned, having been there 40-some years ago as a soldier, and there again last week seeing the recruits. The quality of the recruits is very impressive, I must tell you—brand new, 2-day-old enlistees who are there and those who are in training.

Is it possible or would you have in mind to try to reexamine or inject any points of view developed as a result of the gulf experience?

General POWELL. Certainly we would do that, Senator, and, as you know, we are going to be setting up the commission required by the Congress. But at the same time I must say that we have to get our base structure down. It is the most painful thing the Department does. It is a very, very painful thing. I have been involved in base closure activities for the better part of the last 10 years in one capacity or another. Our Army base structure, for example, in some ways is based on post-Civil War posts that go out across the Midwest. It is also driven to some extent by World War II experience. Our Air Force base structure, to some extent, is left over from short-legged bombers of the immediate post-World War II period—huge bases that we simply do not need any more

If we are going to take these budget reductions and if we are going to reduce the size of our force structure close to 30 percent, we simply have to make our base infrastructure much more efficient. Large bases have to be closed.

Senator LAUTENBERG. The only thing that I ask is that they be examined in light of current experience of things that we have learned. The gulf war was a unique experience and told us for the first time how long our reach had to be, as we had never before seen it. Yes, the Pacific may have been different, but that was a total world engagement.

I would like to ask you one other question about burden sharing. My colleague, Dale Bumpers, had the best expression I have ever heard and has been in all the newspapers, and I will let you enjoy the authorship here.

Senator BUMPERS. I am afraid you will not do it as well as I do, though, Frank. [Laughter.]

BURDEN SHARING IN DESERT STORM

Senator LAUTENBERG. I am afraid I will not either. I am very anxious to make sure that the burdens are shared, as I view them, properly, which might be different than the donors. What do you sense from any contact that you have had? You have met periodically or had contact with the Germans and the Kuwaitis and the Saudis. Do you sense that they feel an obligation to finance this as fully as their capacities permit, or is there to be a negotiation over it?

General POWELL. I think they have been very forthcoming to the extent that I do not have the exact number in mind, but over $50 billion has been committed.

Senator LAUTENBERG. But we will have to spend a lot more than that.

General POWELL. Yes; and that is quite a piece of change. Do they have the capacity to pay more? I am sure they do. But I think we have gotten a very, very responsible contribution from those friends of ours and coalition partners who were most directly involved. The Kuwaitis have been exceptionally forthcoming, as they should be. The Saudis have been forthcoming, as they should be. We have seen more of a contribution from the Germans in recent weeks. The Japanese have come forward with some more; they could probably do more. The Koreans have come forward.

So I think we have had quite a good response from our friends and allies to help share the cost, and I hope we can keep negotiating with them and get more to narrow the difference between what they pay and what the American taxpayers are going to have to pay.

RESERVE COMPONENT ROLE FOLLOWING DESERT STORM

Senator LAUTENBERG. One last question, Mr. Chairman.

General Powell, do you see any rethinking of the role that the Reserve forces play, either in the Guard or the general Reserve? It is my understanding that there are over 200,000 people called up who are not regulars. That makes quite a dent in personal life, et cetera, and community life in many places across the country. Do you envision any major restructuring of the Guard relationships and the Reserve relationships to the basic military structure of the country?

Have we ever in history had this much of a Reserve component in an action?

General POWELL. I would have to check against the World War II experience, but it was nowhere near this large a proportion.

[The information follows:]

While we had a larger absolute number of Reserves mobilized in support of World War II and the Korean War, the percentage of Reserves forward deployed in support of Desert Storm is unprecedented in history.

General POWELL. Philosophically, the Reserve components will play as important a role in the future as they have in the past, and the role they played during Desert Shield/Desert Storm has just been incredible. We could not have done it without the Reserve components.

We uprooted a lot of people from their lives. We sent them off, and they went. They knew they were soldiers and sailors and airmen and marines; they knew they had the training for such a possibility, and, when called, they went. We are very proud of what they do.

At the same time, we do have to take a hard look at the total force picture. We have made significant increases in the size of some of our Reserve components and some parts of our Guard structure over the last 10 years. We were, at the time, focused principally on the Soviet threat—that world war III type of threat that I talked about. Since that threat is gone, we should examine whether we need as much structure in the Guard and Reserve as we have had in the past.

I think we can trim back significantly. The President's budget reflects a significant turning back, and I think that is a prudent thing to do to save money. I hope the Congress will see it that way. I was quite concerned last year when the Congress froze the strength of our Reserve components. We cannot do that in a period of declining dollars and when we have a different strategic need and when the whole force structure is going down.

But I hope the Congress will not put that kind of constraint on us this year.

Senator LAUTENBERG. I just wonder whether the reverse is true—whether, in fact, you build a larger Reserve component and, in turn, balance it off with the kind of cuts you have been talking about.

General POWELL. In the new strategic environment, we can do with fewer Active forces and fewer Reserve forces.

Senator LAUTENBERG. Thank you very much. Thank you, Mr. Chairman.

Senator INOUYE. Thank you.

Senator DeConcini.

Senator DECONCINI. Mr. Chairman, thank you very much.

General Powell, my compliments too for an outstanding job. Obviously, you are proud and you deserve the pride you have in the force structure that you put forward there.

1988 BASE CLOSURES THAT MAKE NO SENSE

Let me follow up on the question Senator Lautenberg asked on base closures. The new directives will come out, I think, on April 15. We have—and I hate to be so parochial, but it just boggles the living daylights out of me—in Arizona the problem of the Information Systems Command at Fort Huachuca being moved to Fort Devens and the GAO coming up with a horrendous cost of close to $500 million to do that.

This disturbs me not only because they are leaving Arizona, but because this is offset by the intelligence school coming. Those things are going to happen and we realize that. But in this effort to reduce the bases what can you do to see that it does not end up costing you money. In fact, I think there are about 6 or 7 out of the 83 initial bases that really were absorbed that you have to go through and do now, although there is some relief possibly coming.

Can you comment or give us your views on how you keep from wasting that kind of money?

General POWELL. Senator, I do not have in-depth knowledge of that one. But I know a little bit about it. One of the problems we had with that, the way the law was structured, once the Base Closure Commission made its recommendations and the Congress acted on those recommendations, you could not change them. There were several cases and a couple of cases in my command at the time, Forces Command, that in my judgment did not make a great deal of sense. The one you refer to was not in Forces Command; it is in another Army command.

But I could not get them changed.

Senator DECONCINI. Well, General, does it not make some sense for you to make a recommendation to the Administration and to the Congress to change those that really make no sense instead of just kind of saying, "Well, you guys did it and now we are going to eat it and it is going to cost us all money and that is the way it is"?

That is what troubles me, is that we do not see any effort from the Defense Department to make the changes. Now maybe we cannot do it, because I understand the politics of what goes on here, too, but it just really troubles me that there does not seem to be the leadership coming from the Joint Chiefs or from the Pentagon reversing or at least considering reversing those that are so obvious.

I just throw that out as a suggestion that maybe you have not thought of, or maybe you have and decided that, hey, we are not going to do anything about it.

General POWELL. As Forces Command Commander I had thought of that, Senator, and in discharging my responsibilities I had made my views known to my superiors.

Senator DECONCINI. Well, that is good.

General POWELL. With respect to the Fort Huachuca-Fort Devins swap, that is one you really need to work with the Army. It is a little out of my portfolio right now, but I share your concern. We should not be wasting taxpayers money.

Senator DECONCINI. I am pleased to hear that you did exercise your line of authority and at least expressed how foolish that was.

General POWELL. I did not get anywhere, as you know.

Senator DECONCINI. You do not have any clout, I guess. [Laughter.]

Senator BUMPERS. There goes your five stars. [Laughter.]

General POWELL. Good.

Senator DECONCINI. General, let me ask you another question. Secretary Atwood was quoted in Defense News a few weeks ago as saying that after the war, the United States should seek an extension of export controls on missiles and other weapon technology. This is an issue that I have followed for some time, and you and I worked on it a few years ago with Bahrain, and we finally found some accommodation where they could keep their Stingers and suggested sanctions on the transfer of this technology should be expanded to include Third World countries.

EXPORT CONTROLS FOR WEAPONRY

What discussions, if any, General Powell, have you had or been involved in on this, and do you think that we should reassess the massive military transfer that we seem to have been involved in over the years, particularly in this region?

General POWELL. We have been discussing that within the administration, and I think you will see in the months ahead we will be paying greater attention to that issue. I could not agree with you more, and I could not agree with Secretary Atwood more that we have got to do something about the proliferation of not just high-technology weapons, such as missiles and the like, but all weapons.

I mean, when you look at a place like Iraq that was able to accumulate the fourth largest army in the world, with 6,000 tanks, with 60-odd divisions, building nuclear devices, a chemical capability, a biological capability, it should have scared the bejesus out of all of us long ago. We watched it during the period of the Iran-Iraq war. Henry Kissinger had the great line that we all remember: It is a shame both of them cannot lose.

I was National Security Advisor when we got the cease-fire, and people said well now we have to go for a peace treaty between Iran and Iraq, and my concern at that time was I am not too sure about that. Iraq will turn its attention elsewhere. And we found out where they finally turned their attention to.

So I think that in the future security environment for the region we have to get a handle on weapons proliferation, sophisticated technology, unconventional weaponry, and we have got to make sure that these nations only have that which is necessary for legitimate self-defense requirements.

Senator DECONCINI. Not to beat a dead horse—excuse me for interrupting.

General POWELL. One other point, if I may, Senator. Of the weaponry that Iraq had, 95 percent came from the permanent five members of the United Nations. I mean, we did it, and our Soviet friends and our Chinese friends. So if you are looking for who done it, we did it, and now we have got to make sure we do not do it again.

I am speaking for all of the principals of the administration on this issue.

Senator DECONCINI. But doesn't our country need to reassess what we are doing? We sold F–15's, Maverick–G missiles to Kuwait. Had Saddam waited another 30 days, those Maverick–G's would have been delivered, as you know better than I do. And there were some of us who attempted to persuade the administration not to deliver those, and we lost by one vote in the Senate. It just concerns me, and it is encouraging what you are saying, General, is that you think we have got to reassess some of the proliferation of these sophisticated high-technology weapons. Is that correct? Is that what I hear you saying?

General POWELL. I believe that, at the same time recognizing that it is up to each individual nation to make a judgment as to what they believe their security needs are and how to meet those needs. You also get in difficult situations when you are in a marketplace where all these weapons are readily available.

Senator DECONCINI. The leadership needs to come from the United States to get the members of the Security Council not to sell.

General POWELL. Yes; the President understands that. The Secretary of State and Secretary of Defense do also. And we have been discussing it.

Senator DECONCINI. Thank you, General. That is encouraging. It really is. I just know there is a lot of support out there to see that all nations might curb that. I realize it is many and what have you, but, for God's sake, it is just absolutely ridiculous.

U.S. WEAPONRY TO BE LEFT IN PERSIAN GULF

What about the leftover equipment? Has any determination been made how much of that is going to remain prestationed in Saudi Arabia in the theater there for our future use, God forbid, or is it going to be turned over to the Saudis? Does it play into the second phase of the Saudi sale that has been pulled back? Has that been massaged through yet?

General POWELL. I always make the point that it is not leftover equipment.

Senator DECONCINI. You know what I mean. It is there. Are you going to pull it back?

General POWELL. It is there, but it is ours.

Senator DECONCINI. Are we going to pull it back or leave it there?

General POWELL. A good part of it will be pulled back to reconstitute our stocks.

Senator DECONCINI. When you say "a good part," what are you talking about?

General POWELL. I said good part because we have not yet decided how to dispose of it all. I expect that when we resolve it all you will find that some part of it will be left in prepositioned stocks for our use when we come back for exercises or in case of an emergency. Some of it may well be transferred to other nations in the region, but we are just now beginning the process of discussion with our friends in the region as to what their needs might be.

We have to look at our own force structure requirements for the future. We simply cannot dispose of it all. I have to reload our maritime prepositioned ships with everything they came with, so that I reconstitute that part of the force.

Senator DECONCINI. And much of that will be that equipment?

General POWELL. That is correct. We put 60 days' worth of stocks over there for a war that only lasted 4 days, and I have got to bring most of those stocks out again so if we ever get faced with an emergency such as that again I have the stockages available and not blocked into a warehouse in Saudi Arabia.

PREPOSITIONING IN ISRAEL

Senator DECONCINI. Will any of that be prepositioned in Israel? Is that under consideration?

General POWELL. As you know, we do have a variety of programs already with Israel, and those programs continue. We will reserve emergency stocks, but we are just now beginning the process of discussion. I do not have any specific information with respect to Desert Shield/Desert Storm equipment being transferred or stocked in Israel.

Senator DECONCINI. But that is possible?

General POWELL. Anything is a possibility, but I do not have anything on the table right now.

POST-DESERT STORM U.S. PRESENCE IN PERSIAN GULF

Senator DECONCINI. Last question. What is your estimate to date, General Powell, if you can tell us, on what kind of a U.S.

presence will remain in the gulf area, particularly in Saudi Arabia, but in the gulf area in general as to numbers and period of time?

General POWELL. We cannot give you numbers yet. The President is anxious to get all of our ground forces out as quickly as possible, so that is my first challenge, to get those ground forces out as quickly as possible.

I suspect that something will be needed to protect Kuwait for some time to come.

Senator DECONCINI. U.S. presence?

General POWELL. Something will be needed. I think more than likely on the ground it will not be air presence. It will be perhaps allied forces, and that has to be worked out, what is acceptable to the Government of Kuwait—which allied forces are willing to make a contribution, what will be the role of the United Nations? Iraq did not need 4,000 tanks to overrun Kuwait. Kuwait is a very small place. They could probably do it with one division.

So we have to make sure that something is left in place in Kuwait to provide deterrence against any future Iraqi aggression.

I think our role in the region will be one of a continued naval presence, maritime presence afloat. We may well want to leave some air component there, some air forces, if not permanently stationed in the region then maybe on a constantly rotating basis so there are always U.S. air forces in the region. I think we will see a more aggressive exercise program with our Saudi friends and other friends in the region, and much more of a presence, even though it is not permanent presence on the ground.

I think you will see us more deeply involved in training of Saudi forces and other forces in the region. What we have to do, though, is make sure it is part of an overall regional security arrangement and not just bilateral between the United States and other nations.

Senator DECONCINI. You certainly see some continued presence of military forces there, air and sea for sure?

General POWELL. For the foreseeable future; yes.

COALITION COOPERATION WITH ISRAEL

Senator DECONCINI. I said lastly already, but let me ask you one other one. Do you foresee any involvement or cooperation among this multilateral force that you put together, the coalition, and Israel? Is there any consideration that there might be some joint security needs here, or is that just out of the question until the Palestinian issue is resolved?

General POWELL. I think we have done a hell of a job with the coalition we have now, and one of the things that was key to that was when the Scud attacks began against Israel. To continue to have Israel show the kind of brave restraint that they did show, and it was a tough one for them, that was a key part of keeping this coalition together. I do not think we have quite reached the stage where we can, in an open fashion, have a military relationship with Israel. However, at the same time I think attitudes have been changed markedly as a result of Israel showing restraint.

Senator DECONCINI. Among the Arab nations of the coalition?

General POWELL. Among the coalition. So I think things are moving. There are forces at work here that I think will ultimately be to the benefit of Israel, but you would be probably trying to put too many straws on this camel's back if you said let's open up the coalition to Israeli participation.

Senator DECONCINI. General, thank you very much for that candid approach. I appreciate it.

Senator INOUYE. Senator Bumpers.

Senator BUMPERS. Thank you, Mr. Chairman.

DESERT STORM INTELLIGENCE PERFORMANCE

General, there are always winners and losers in a war, and it seems to me that one of the losers in this war was the intelligence community. I heard Admiral Crowe say one time if you read military history you will find that all great victories were by commanders who ignored their intelligence. In this case, you know, I do not think anybody in the Senate was ever told that we would lose less than 1,000 men in a ground war, and estimates ranged as high as 30,000.

I assume that perhaps you all were operating on something of the same assumption. One of the questions I wanted to ask you, on hindsight now do you still feel that Iraq actually had 500,000 men in southern Iraq?

General POWELL. Yes; I believe they had 42 divisions. I think our estimates were good. You never heard from the administration, 30,000 casualties. You heard it from a lot of think tank experts, know-nothings, and other people who shoot numbers off the top of their head because they have got some MacII computer in their office and they once read a book by Sun Tzu.

There was a hell of a lot of bad advice passing around this town—experts appearing before committees, talk show people. They were no longer providing expert advice. They were just watching CNN and the next thing they were commenting on what they saw on CNN. But they did not know what our plans were. They did not know what we were trying to do. They did not know what concept we were using. So they ran their little models and ran two forces against each other like this and came out with answers that scared the devil out of the whole Nation.

None of our estimates were ever that high. But we could not be sure of how the war would go. Before the war started, one could not be sure what the level of attrition of our air forces would be against the enemy. So I think the intelligence community served us well, reasonably well.

But you cannot expect the intelligence community to have complete and pure insight on everything the enemy is doing when that enemy is doing everything he can to keep our intelligence community from giving you such insight. So that is where commanders come in. That is what generals get paid for. Generals get paid for digging up all the facts, getting everything the intelligence community can give you, or any other community can give you and then going with your instincts.

But they are informed instincts. A generalship such as that displayed by Norm Schwarzkopf and his commanders is a matter of taking that intelligence, giving it the common sense he has, smelling the battlefield, but knowing what your enemy is really doing. In this case I think it worked well. But our casualty estimates were never internally as high as you stated—and these were not mechanical or mathematical casualty estimates—no model could really run it for us in a sensible way.

Norm and I had a general feeling as to what our casualties might be. They were in the range of something that was acceptable for the force to absorb—much, much lower than anything anybody was tossing around publicly. We did not want to give out numbers because we had a hard time substantiating those numbers. They were more just feelings that Norm and I had. In the final analysis, even we were wrong. Casualties were much smaller, because we had broken that army through air power, through cutting off the army from its lines of communication, and then not fighting the war Saddam Hussein wanted to fight.

Senator BUMPERS. Well, when I talk about the intelligence I am just talking about some of the gurus in this town who came up and gave us some pretty scary numbers. Of course, that all assumed that Saddam was going to fight, that the Republican Guard, as we were told at one briefing was equal to any NATO soldier was going to fight. That, of course, turned out not to be true.

I think we overestimated them and we underestimated ourselves. Maybe you did not. Maybe you did not underestimate your own strength. I did. I think it was a combination of the two things.

General POWELL. If I may, Senator, we gained strength over time, while they lost strength over time. So it was a dynamic that was at work. While they were absorbing 4 weeks of an air campaign, we were getting stronger every day; they were getting weaker every day. So the calculus tilted.

I never thought the Republican Guard was equal to a NATO force. I have seen these "elite" units before. The Shah of Iran used to have lots of them, and they all cracked within 10 or 20 minutes. But at the same time you had to treat it with respect, so you never overestimate your enemy but at the same time never underestimate him.

My personal view of such matters is you do not have to take chances. The American people have given us one hell of an Armed Force, and if the Secretary had given me a couple more months I would have brought more divisions. I believe in being a bully when you go to war.

Senator BUMPERS. I could not agree with you more.

General POWELL. I believe when a man is down, you should kick him.

Senator BUMPERS. I voted not to give the President the authority to start that war, but I will tell you one thing, once you start one, by God I believed in winning it.

General POWELL. And that is what we did. So the outcome was pretty clear as we went into the air campaign, and the only thing that was a matter of hesitation was how many casualties would we take. My greatest concern was with the frontal supporting attack by the marines. That is the part of the battle that concerned me the most. And, thank heavens, that went well.

MLRS USE IN DESERT STORM

Senator BUMPERS. How many MLRS's did you fire in that war? Do you have any idea?

General POWELL. I would have to get that for the record, Senator—quite a few, particularly before the ground campaign started.

[The information follows:]

[Deleted] MLRS PODS were reported by theater as expended in support of Desert Storm.

ATACM PERFORMANCE

Senator BUMPERS. Did the ATACMS perform well?

General POWELL. The ATACMS performed pretty well, but it is hard to get a BDA on it because it goes deep. But it performed well.

Senator BUMPERS. General, you know this committee is going to have to mark up a bill one of these days, and we are going to have to decide how many of these weapons you want replaced, how many of them you think need to be improved—still have a lot of ability but need to be improved. I assume we are going to get all that information from this war because you used about everything we had in our arsenal at some point, and we need a criteria here to intelligently decide how we are going to deal with cut budgets and still give you the most effective weapons that you want and feel you need.

The Soviet Union has obviously watched this war with a great deal of interest, and I am sure they did not see anything that happened in the war that was very gratifying to them. But let me ask you one thing about so-called smart weapons that are laser guided and so on.

A laser cannot penetrate smoke, and I just wondered why, for example, Saddam did not have smoke generators around his key positions so that any time he got any kind of a warning he could crank up the smoke machines and possibly thwart the laser systems.

General POWELL. He made so many mistakes, Senator, that that just has to be added to the list. When the history of this thing is written, the mistakes that were made by Saddam Hussein and the Iraqi generals are absolutely incredible.

Senator BUMPERS. Well, Dick Cheney said the other day—and incidentally Dick has made me proud of my vote on the Tower nomination; he has handled himself extremely well in this crisis—but he told us the other day something about Saddam. He is one of history's biggest losers, and that is a great description of the guy. I do not see how he is going to make it, and I am talking about Saddam and why he did not try to defeat some of these laser-guided munitions.

But I can tell you the Soviet Union is looking very carefully at everything we did in Iraq and how they are going to defeat it. So that is the reason I say you may want some follow-on weapons and you may want to do some research on a lot of other things. Of course, we look forward to getting that kind of information from you.

PROBLEMS WITH SOVIET CFE COMPLIANCE

What is the Soviet Union doing right now that caused us so much grief about the CFE? Now the CFE has been signed, but it has not been approved by the Senate.

General POWELL. Yes.

Senator BUMPERS. Now the last time I was in Geneva—and I am on the Senate's Arms Control Observer Group—the Soviet Ambassador told us that they did not intend to move their tanks back beyond the Urals and indicated, without saying precisely so, I was left with the impression that they intended to destroy about 20,000 tanks. But now there seems to be some confusion about just what their aims are and whether they have been honest in their count.

What, in your judgment, is the sticking point on that right now?

General POWELL. There are several sticking points. The one that troubles me the most is suddenly the Soviets have taken several divisions and their equipment and resubordinated them under naval commanders, thereby claiming they no longer count under CFE totals because naval forces do not count in CFE. They are not included in the CFE. They also played a little fast and loose, in our judgment, with some of the numbers of countable, treaty-limited equipment that is left in the zone, and they were not as forthcoming as we thought they should be with respect to equipment that was being moved out of the zone.

They also did some resubordination of airplanes under naval forces and thereby claimed they were no longer countable under CFE.

These are not just technical matters. These are fundamental misreadings of the agreement that we signed, and we have told our Soviet associates that it is impossible for us to send a treaty up at this time where one party to the treaty is totally misreading that treaty. I mean, there is a fundamental disagreement as to what the treaty says, and under those circumstances we cannot possibly send such a treaty up to our Senate. So we need to sit down and find out whether there are technical problems that can be resolved or whether you folks have decided you want to keep this treaty from going into effect.

So it is not just a matter of a few little number differences. There are fundamental misreadings of the treaty on their part as far as we are concerned, and we are trying to get them to understand the impact of what it is they are doing.

My own personal judgment is that the Soviet military, with its position somewhat strengthened now in recent months, as Mr. Gorbachev has tacked back to the right a little bit, have taken a hard look at where they were going to be at the end of the CFE phase-in period and may not have liked what they saw and have decided to slow this train down. The Foreign Ministry guys have sold us out a little bit.

So I think it is a reassertion of a little bit of influence and authority on the part of the Soviet military. Now when they also see how their equipment has performed in Operation Desert Storm and how our equipment has performed in Operation Desert Storm this parity they have been looking for may not be what they thought it would be. So I think they are taking a hard look at life and its many wonders and the future security needs of the Soviet Union and have decided to slow this arms control train down.

Senator BUMPERS. I am inclined to agree with that assessment.

HAWK MISSILE TRANSFERS TO IRAQ

Let me just close, Mr. Chairman, by saying, General, I am one who has always been extremely apprehensive about these arms transfers to Third World countries, using the line that our weapons always last longer than our friendships, and it is not just the people that we consider friends in the Third World that we send weapons to. It is sending weapons to Kuwait which make them very vulnerable to capture by people like Saddam.

Now Saddam had 300 Hawk missiles and 18 launchers. We never actually voted on that sale here. We did not vote on the sale of Hawks to Jordan. If we had, I would have voted against both of them. Neither one of those people have any business with a technology that sophisticated.

I do not know what happened to those Hawk missiles. I understand that Jordanian technicians were trying to teach Saddam how to use them, but I never saw any more mention of them after the first of the war. Just quickly, do you have any idea what happened to them?

General POWELL. No. I am not sure they ever really were operational and whether those folks were trained to use them. We saw some of the radars come on from time to time, but that may have been for the purpose of making us think that they had an operational capability. [Deleted] we never were terribly worried about the Hawks. We thought we could deal with that.

But I have got to tell you it is easy for me to say that in Washington. I am not sure the average F–16 pilot flying over Iraq had the same confidence that I had.

ARMS SALES TO THIRD WORLD

Senator BUMPERS. And if he had invaded Bahrain he would have inherited a bunch of Stingers. What are we doing selling Stingers to Bahrain? What are we doing selling Hawk missiles to Kuwait? Those people could not defend themselves against the Washington—no; I will not say that.

Senator INOUYE. Let's not get carried away now.

General POWELL. In any event, these are nations that believe they have legitimate security needs requiring modern weapons, and our policy has been to try to satisfy those security needs as long as they are consistent with the principles of self-defense. It is a large market out there with a lot of salesmen.

Senator INOUYE. If the Senator will yield, they provided us very generously with bases.

Senator BUMPERS. Those are all true. And, as you know, everybody knows that Israel is a client state and we have supplied them with a lot of military aid, a lot of economic assistance, and as long as we do that, with the volatility in the Middle East, they are literally going to demand weapons from Brazil, France, and everybody else they can buy them from.

But I do think that the Defense Department can be of immeasurable help on this in just being as careful as possible in assessing whether we really want to sell some of our technology to these people or not, because I really think that is what the Security Council ought to be doing right now, trying to get Brazil and France and

Italy—they brought a mine in the other day in a briefing. Did you see those? Saddam had bought 2 million of those things from Italy.

Had we not supplied Saddam with mines in the Iranian war?

General POWELL. I do not recall, Senator. I am not sure.

Senator BUMPERS. I saw in the press this morning where we are supposed to get a list of all the things we had sold to Iraq in the last several years. Are you familiar with that?

General POWELL. No; I do not know if we have been tasked to do that or not.

Senator INOUYE. I had asked Secretary Atwood.

JORDANIAN MILITARY AID TO IRAQ

Senator BUMPERS. One final question on Jordan. Talking about the losers, there is a big loser. But I saw a story the other day that when we went into some of the bunkers we found Jordanian ammunition. Is that correct?

General POWELL. Correct.

Senator BUMPERS. But it was not American-made, I hope.

General POWELL. I am not sure where it was made, but it was marked for the Jordanian Armed Forces. What we cannot tell—and we are sending teams over there to look at the ammunition—is whether it was ammunition that had been delivered before the conflict began. You will find everybody's ammunition over there, delivered before the conflict began, including, I am sure, some of ours.

Senator BUMPERS. Do you think this was delivered before the conflict?

General POWELL. I do not know.

Senator BUMPERS. Thank you, Mr. Chairman.

Senator INOUYE. Senator Domenici.

Senator DOMENICI. General, I first want to apologize for leaving. I had Secretary Sullivan over at another meeting and I am embarrassed, frankly, because I invited him and I had to run over there. But I wanted to share a few thoughts.

CONSOLIDATION OF R&D EFFORTS

First, as you move into the world situation, as you analyzed it in your opening remarks, I am very, very pleased that you understand that research and development and technology are very important, even in a much different world. I first want to compliment you—and I will have another opportunity to do this more in the record—for the reorganization of your research and development efforts—your U.S. Department of Defense centers of science and technology.

You have most recently consolidated, as you well know, many of your research activities and you have only five so-called megacenters. We are very fortunate in that Albuquerque and Kirkland Air Force Base was chosen for the space R&D center. That means that all of your research in space activities that is military will be in one place, and you have named it for General Phillips. It is the Phillips Laboratory.

There are four others around the country that do other things, and I think this is an exciting way to enter this era. But I would like to suggest to you, Mr. Chairman, that I was used to giving a speech about science development, and I said maybe 8 or 10 times that in the next 30 years there will be more science breakthroughs than in all of civilization. I arrived at that myself, which was kind of crazy. I just said that is probably right, and I did that because I figured the mind of man has been tremendously aided by computers and so we are going to make great breakthroughs.

At one time I was speaking to a great scientific group and one of my friends stopped me and said, "You should not say that." I said, "Why?" He said, "Because"—I had been saying 20 years—"you should say 30." I said, "Oh, well, I will use 30," so now I do. There will be more science breakthroughs in the next 30 years than all of civilization.

I think that is important for you all because I believe our nuclear deterrent capability was maintained because three giant laboratories were charged with never letting anyone make a breakthrough that we were not on top of. And I think the same thing must apply to you all, to the U.S. Defense Department. I think we have to be very careful with the enormous science breakthroughs that we are not caught with somebody having some superweapon in terms of technology. I think this capacity to put the very best minds into five megacenters, and having them talk to each other is a very exciting concept.

Now, having said that, let me tell you that I am very worried about how you are going to convince Congress to keep the funding levels for this research up. I really do not know how, but I challenge you to use the very best at showing us up here how important it is, because we get kind of bored with research unless it goes to our very well-being. We never got bored with nuclear research because it was very easy for the nuclear laboratory people to come up here and say we need nuclear supremacy and we would send them $1 billion.

But when it comes to this kind of research I think we get very bored, and I do not think you can let us do that. We have to put money into research as we build down or we really are making a very big mistake. I just would ask you, do you have a thought on that?

General POWELL. I certainly agree with you, Senator. Sometimes the most unglamorous research produces the best results in things that can really make a difference in warfare. So I share your view entirely and will pass it on to the Joint Chiefs and make sure we make that point.

Senator DOMENICI. Let me tell you one more thing. When you did the reconstructing of your R&D facilities into five megafacilities, or whatever you call them, you went out into the civilian part of America and got an adviser who worked for your chief general, and he went over to the Defense Department for 4 years and worked across America with the best scientists and then said, "Here is what I recommend." I think you have to regularly do that also.

General POWELL. Thank you, Senator. We will.

R&D BUDGET DEFICIT

Senator DOMENICI. Thank you very much, Mr. Chairman. We will be doing our best to see if we can work out both the numbers, and some of us are as concerned as you about the fact that the

Congressional Budget Office has—do you know they have now put numbers to your budget which indicate that you are $2.8 billion in outlays over? That is Friday afternoon. That is not very good news.

General POWELL. I had not received this happy news, Senator.

Senator DOMENICI. I guess we saw it yesterday. Staff saw it over the weekend. I guess everybody is working on where does it come from.

General POWELL. They think we are over by $2.8 billion?

Senator INOUYE. There is a difference between CBO and OMB.

General POWELL. As usual.

Senator INOUYE. I think we can work it out.

Senator DOMENICI. So the mismatch is continuing that we have had all along, but now it is serious when you have a cap.

General POWELL. Thank you, Senator.

Senator BUMPERS. Mr. Chairman, may I ask one question before I leave, with Senator Stevens' indulgence?

STOCKS TO REMAIN IN GULF REGION

General, I wanted to clarify one thing you said a moment ago about the stocks there and what we are going to pull back. You said something about possibly leaving it with some of the nations in the region. Are you referring to ammunition stocks or what are you referring to there?

General POWELL. It could be prepositioned ammunition stocks, building materials, parts, or actual end items of equipment—tanks, trucks—and we are still working it out. Some of it could be actual unit sets of equipment so all we have to do in a future crisis is just bring people over. Another component of it could be prepositioned stocks of ammunition, rations, spare parts, things of that nature such as we have had in the region from time to time.

We are also looking at additional opportunities for stocks at sea, such as the maritime prepositioning ships that we use and the afloat prepositioning ships that we used for the Army and the Air Force—a very valuable concept that worked well in this crisis.

So I cannot be more precise at this time because we have just now started to begin those discussions with our friends in the region.

CRUISE MISSILE PERFORMANCE IN DESERT STORM

Senator BUMPERS. What percentage of our cruise missiles did we fire in this war; do you know?

General POWELL. With the stocks on hand, it probably approached [deleted].

Senator BUMPERS. Did they perform well?

General POWELL. They performed extremely well—very high success rate for the cruise missiles.

TOMAHAWK

During Desert Storm 291 conventional Tomahawk land attack missiles (TLAM C and TLAM D) were expended from an inventory of [deleted]. This equates to [deleted] percent of the conventional TLAM C/D inventory.

Senator BUMPERS. Incidentally, Fiat has part of the Patriot contract, do they not?

General POWELL. I do not know, sir.

Senator BUMPERS. I just thought about it when I was talking about those mines they sold Saddam a while ago. I got to thinking about that.

General POWELL. A little linkage?

Senator BUMPERS. Well, Toshiba sold them all of our submarine equipment, and that is the way those things happen sometimes. They sold the Soviets a great technology, to our eternal dismay and regret.

Thank you, Mr. Chairman.

Senator INOUYE. Off the record for a few moments.

[A discussion was held off the record.]

Senator STEVENS. My friend, I consider you to be one of the most important men in the world, but I am sure that you will appreciate that my appointment this morning was of a higher calling. But I am pleased that I was able to get here because I still would like to pursue some of the things that I have pursued with you and the President and others.

RISKS ASSOCIATED WITH PROJECTED FORCE CUTS

We have looked at this planned force structure now—down from 35 to 26 tactical wings, from near 600 down to 450 combat ships, 18 divisions down to 12 Active divisions. I have asked it in different ways, but let me put it this way. What risks would you have faced in 1996, assuming we do all that, that you did not face in planning this Persian Gulf excursion?

General POWELL. We could not have done it as rapidly and we would not have had as many Active forces to draw on. We all have to understand that when you take the force structure down, with each additional wing that goes out, each additional division that goes, each additional ship that goes out of the force structure, you increase the risk to the Nation somewhat and you reduce your flexibility. You just do not have as many tools in the toolbox to pull out.

Senator STEVENS. Well, I am still a neophyte at this business, but it seems to me that this marvelous deception that came out of this plan, the serious perceptions that were in the plan, could not have been possible without the massive force structure that was there.

General POWELL. That is correct.

Senator STEVENS. So what we are really saying is we are just going to have to do with a lot less and that necessarily gives us very limited options for future planning of that type, does it not?

General POWELL. It gives you fewer options, certainly. But remember the force structure we enjoyed for this crisis was put in there not for a crisis with Iraq but essentially for the NATO force structure in anticipation of possible use in Europe. Now that the Soviet Union is in the process of removing its armies from Eastern and Central Europe and the likelihood of world war III breaking out is reduced, we are lowering the size of the force structure in response to the fiscal pressures as well as this changing geostrategic environment, and you will have less flexibility to respond around the world as the night follows the day.

The one thing we have decided—and the Secretary and I are rock solid on this—is we will take the force structure down so that the residual force structure is ready and able to perform the mission. We will not keep the force structure up if it starts to get hollow, because then you are just deceiving yourself and deceiving the Nation about your ability to respond to something.

Senator INOUYE. Would the Senator yield at that point? You have seven Active divisions in the gulf at this time. You left one division apiece in Alaska, Hawaii, Korea, and Germany.

General POWELL. Two divisions in Germany.

Senator INOUYE. That would be 11 altogether, which leaves you one under the 1995 plan.

General POWELL. That is correct.

Senator INOUYE. For contingencies.

General POWELL. Right now, under today's plan, there were two in Germany. We still had the 8th Division——

Senator INOUYE. Two in Germany. Then you have all 12 accounted for.

General POWELL. If you take the seven that are there, two currently in Germany, one in Korea, one in Hawaii, and one in Alaska, I do not know what that all adds up to. It is 12. That is right. There would be nothing left in the ontinental United States. Right now in the continental United States we still have the 5th Mech Division at Fort Polk, LA. I still have the 7th Mech Division at Fort Carson, CO. I still have the 7th Light Division at Fort Ord, CA, and still have the 10th Light Division at Fort Drum, NY. That is the flexibility you get. You can do a Desert Storm and still have some capability to respond to a minor contingency somewhere else in the world.

When you get down to a much lower force structure and a Desert Storm comes along and you invest as much force in it as we invested this time, you reduce enormously your ability to respond elsewhere in the world. That is what happens when you have a smaller budget and a smaller force structure.

Senator STEVENS. Well, I have to tell you I do not share some of your feelings. I am not sure that they are your feelings, but your conclusions about the Soviets. We faced a series of briefings, some of us, last week. One of them just totally amazed me, concerning the total collapse that is predicted now of the Soviet economy, their approach to the CFE negotiations and our continued relations in START. Those are just sort of on hold, if not reversing.

We have increased anti-United States rhetoric in Korea and aging leadership in China, with some obvious change to people who may be more militant and more highly technologically inclined. Plus, it seems to me that we have new evidence that there is going to be ongoing unrest in the Middle East. And then, in our own area, Central America is still semiquiescent.

I really cannot share the conclusion that we can afford to not question the force structure concepts. I am worried about it because if we change the force structure then we even further limit our ability to do the research and development of new systems that we now will require to learn from what has just happened this past few weeks.

I hope someone will start looking at the whole question and advising the Congress of what will be the demands overseas in about 10 or 15 years. Are we going to leave Korea entirely, leave Japan entirely, leave Germany entirely? Are we going to depend upon mobile forces and SOLIC to meet requirements?

I have got to tell you it seems to me, Chief, if the issue of continued presence in Germany is raised around here after what has happened in the last 2 months, it is going to come down like an elevator and continued presence in Japan is in real trouble right now. I am not sure where we are going to go. The force structure has got to be a target that we plan based upon what we can determine as we try to see around the corners. I know that.

But I just am very uncomfortable about the force structure you have planned. Your current feeling is to not ask Congress to change it?

General POWELL. Change what?

Senator STEVENS. Change the schedule.

General POWELL. The budget numbers?

Senator STEVENS. The numbers for 1995.

General POWELL. My instructions are that the budget summit agreement stands, is supported by the President, and we designed a defense program consistent with those numbers. We believe we have given you force structure reductions that are consistent with those numbers that are manageable, that provide the best balance to look out for our interests around the world. It does keep a forward presence in Germany. It recognizes that we have to have contingency forces should we have to respond to something we did not expect. That does keep forces in the Pacific and it does give us the ability to respond to contingencies that may occur elsewhere in the world, such as in Latin or Central America.

But it is right at the edge. As I said earlier, I would not want to see this force structure go any lower, and, should budget requirements drive it any lower, I will be making my views known in spades to the Secretary and the President and the Congress. We are at the base level.

AC/RC MIX

Senator STEVENS. One of the offshoots of that, as I understand it, is a new policy or, let us put it this way, a balanced policy of reductions against Guard and Reserve. Some of us had anticipated that as the Regular forces came down the Guard and Reserves would go up. But that is not going to happen; right?

General POWELL. That is not my concept. The Guard and Reserve went up significantly in the last decade. To talk really about the Army Guard and Reserve—because that is where most of the force structure is—we increased the size of the U.S. Army Reserve by about 40 to 50 percent, and we increased the size of the National Guard something like that.

Those increases were predicated against a NATO scenario where that kind of force structure was needed. With the significant changes that have taken place in Europe, the demise of the Warsaw Pact, and the new strategic environment in Europe, I think we can make reductions in the Reserve component of the force structure.

I am disturbed, as I said earlier, that Congress would mandate no reductions in the Reserve components. The Reserve components should be subject to the same pressures as the Active Force. So it is not that you drop back and put it all in the Reserves.

SOVIET THREAT

If I can make one other point, Senator, I share your concern about what is happening in the Soviet Union and what is happening in Eastern and Central Europe. It is a very troubling set of developments and they have been walking back some of the CFE and START positions that they had heretofore taken. But even with all that turmoil I do not necessarily agree that that means the old Soviet Union is coming back or the old Red Army is coming back to threaten us the way they have threatened us for the past 40 years. I do not see that in the cards.

I see a continuing reduction in the size of the Soviet armed forces, not to the point of their becoming irrelevant, but I do not see that the turmoil in the Soviet Union immediately will result in an increased threat to our interests in Europe or that we will have the same Red Army that we had for the past 40 years. I think the Red Army is in long-term decline for the same reason the Soviet economy is in a long-term decline. They have made a massive misallocation of their resources in defense spending, and they have to correct that, no matter who the Soviet leader is.

PLANNED U.S. FORCE STRUCTURE REDUCTION

Senator STEVENS. Going back to the chairman's point a little bit, we just faced a determined foe, but he was still alone, had no allies, the fourth largest standing army, as I understand it, in the world, but backed up by the population of the 45th largest country. Had we faced a coalition similar to the coalition we had in some splintering of the world, the proposition Senator Inouye mentions of denuding the continental United States in order to meet our obligations overseas literally to try and prevent any conflict from coming to our country would require mobilization of something like a National Guard and Reserve for the home guard.

I do not see it in the plan. I do not see a plan that we could activate Reserves, activate Guard and have a continental force that would enable you to move the trained and regular force overseas and probably in other circumstances in multiple locations. There is, to me, a real gap. Again, I do not think it is your fault. I think the numbers that we have derived are too low.

We had the euphoria of the wall coming down and the euphoria of the first agreement in arms control, and we all thought we were coming into a total situation of peace with nothing to worry about. I think this tremendous victory we have had makes some of us worry—this guy in particular—what would have happened if there were other circumstances out there we did not face.

I have really got to tell you I want to find some way to get some numbers as to how, if we can get the public support—which I think will be there in another year, because I think the public is going to say, wait a minute. You mean we are not going to have those people to do this if something happens again. I really think, at least in the Guard and Reserve, you are going to face some real problems.

General POWELL. As you know, even in our new plan there will remain National Guard divisions that are available for callup, should that be necessary. If the Congress decided to give us more money than provided for in the budget summit agreement and that was a political judgment made by the American people through their elected representatives, and if the President went along with it, I can assure you I know how to spend the additional funds in a very responsible way to buy back force structure, and that is what I would do with the money—buy back force structure.

But at the moment we were told to come in with a program that was consistent with the budget summit agreement for the next 3 years.

ACCELERATED PROCUREMENT OF JSTARS

Senator STEVENS. Let me ask two last questions. I apologize for being late and prolonging it. We saw JSTARS not due for IOC until much later getting some preliminary evaluation, and there were other things being evaluated. In terms of what we have learned, are we going to accelerate any of these high-technology items for procurement?

In other words, what I am really looking at is whether our procurement amount in this budget agreement is going to give us the capability of replacing what we have just used, modernizing what we have now learned that we can improve a little bit, and procuring what we believe is essential for any future conflict. I think Jstars was one of the items that is obviously in that area and accelerating. Can we accelerate it any?

General POWELL. JSTARS, as you know, we took as-is and deployed to the theater, and it worked very well—did as advertised. I cannot answer today whether we are in a position to accelerate that program, but I can certainly look into that for you, Senator.

[The information follows:]

AIR FORCE PORTION OF FUTURE YEAR DEFENSE BUDGET

The two joint STARS aircraft which were deployed for Desert Storm are development-prototype aircraft which we have been using for proof-of-concept and development of the necessary technology for joint STARS. The success of these two aircraft during Desert Storm proves we are headed in the right direction as far as concept and technology are concerned. However, these aircraft are not representative of the production aircraft configuration.

The joint STARS production is based upon establishing a preproduction configuration via a third test aircraft. Development of this preproduction configuration, designed to add the full set of joint STARS capabilities, insure maintainability, and enable joint STARS to be fully integrated with our other systems, is proceeding full tilt via a contract we awarded 2½ months prior to the beginning of Desert Storm.

In order to establish an efficient production program based on this third aircraft configuration, an advance buy decision for long-lead items and ramp-up of vendors has been scheduled for January 1992. This advance buy will be followed by a low-rate production decision in January 1993 which will be based upon testing and development progress of the three joint STARS aircraft. This low-rate initial production decision will be followed by a full-rate production decision in 1995 for the remainder of the planned fleet of 20 joint STARS aircraft.

Acceleration of this schedule will introduce additional cost and technical risk. We are on the right track to deliver joint STARS to the field with all the capabilities we need. I would not recommend any program acceleration.

General POWELL. No other particular piece of equipment comes to mind for acceleration beyond what we already have in the procurenent request for 1992 and 1993. We are also fortunate that we did not lose too many items of equipment. Some of the services lost some items that they think they may want to come forward and try to get Congress to replace, but we were fortunate that we fought the war smartly and there were not that many items of equipment lost.

Senator STEVENS. Well, I would like to hope that we have the funds for a rapid assessment of the systems that were utilized and an analysis of them and see what we can do to listen to the people that used them and even go further in the modernization.

I heard of a couple of instances where you have some very valid suggestions coming back and that we ought to turn to that. I am again worried that the procurement levels are going to be such that that level too will strain the force structure numbers. You would put your highest priority still on force structure, would you?

General POWELL. If I had additional dollars to spend, my highest priority would be force structure.

Senator STEVENS. Thank you very much.

Mr. Chairman, my apologies.

COSTS OF DELAYING FORCE STRUCTURE CUTS

Senator INOUYE. If I may follow up, General, he voiced my concern and, I think, the concern of most of us here, and we also realize that the end strength that we had planned for for fiscal year 1991 has been exceeded as a result of Desert Storm. So if we are going to meet the end strength, as programmed for 1992, the cuts are going to be really precipitous. For example, in the Army, but cut was supposed to be 40,000; it may go over 100,000.

That being the case in every service, I would like to have your mathematicians and statisticians come up with numbers as to what it would mean in dollars if we delayed this 5-year plan by 1 year. In other words, instead of reducing it to the 1992 level as programmed, we keep it at the 1991 level as programmed.

General POWELL. You are talking about end strength?

Senator INOUYE. Yes; what it would mean in dollars.

General POWELL. Fiscal year end 1992 is the same as fiscal year 1991? I will be happy to get those numbers.

[The information follows:]

MILITARY PERSONNEL END STRENGTH

The following chart displays the approximate cost of delaying military end strength in the fiscal year 1992–93 President's budget by 1 year:

[In millions of dollars]

Fiscal year:	
1992	1,393.3
1993	2,978.1
1994	2,957.3
1995	2,502.7
1996	1,232.3
1997	365.0

At this time, it is premature to say with any certainty what the military end strength level will be at the end of fiscal year 1991. However, we estimate that for every 10,000 end strength over the fiscal year 1991 programmed level of 1,974,184 (begin fiscal year 1992) the cost will be approximaely $140 million above the $1,393.3 million fiscal year costs shown above.

BURDEN SHARING BY COALITION PARTNERS

Senator INOUYE. I am sure you realize that burden sharing is in the minds of every one of us here. If you had to pick three items of grave concern, burden sharing would be one of the three. I am not going to ask you for answers now, but I ask this in behalf of the subcommittee—a submission by your office on the latest information on financial contributions something like this that we have prepared. Update that and also contributions in terms of military—naval, air, et cetera—setting forth the numbers of men, what type of ship, what type of aircraft, and, finally, casualties.

It might give a better picture of what some of our friends have been doing.

General POWELL. I would be delighted to do that.

[The information follows:]

COALITION/ALLIED SUPPORT TO DESERT STORM

(The information follows:)

With regard to financial contributions, the latest information released by the Office of the Secretary of Defense, International Security Affairs, is provided in this attached chart. Regarding military contributions, the specifics follow:

Ground Forces:
- 4 Heavy Divisions (-)
- 7 Heavy Brigades
- 1 Light Armored Division
- 2 Combined Arms Brigades
- 5 Motorized Brigades
- 1 Airborne Brigade
- 2 Infantry Brigades
- 2 Special Forces Regiments
- 1 Motorized Regiment
- 1 Mechanized Battalion
- 8 Motorized Infantry Battalions
- 3 Infantry Battalions
- 26 Irregular Infantry Battalions

Air Forces:
- 264 Air to Air Aircraft
- 215 Dual Role Aircraft
- 163 Attack Helicopters

Naval Forces (63 Man-of-War):
- 8 Destoyers
- 27 Frigates
- 14 Mine Warfare Ships
- 11 Large Patrol/Corvettes
- 3 Amphibious Ships

The coalition consisted of over 260,000 personnel. We don't have exact figures on the number of coalition casualties, but they were light.

TABLE 1

DESERT SHIELD: CY 1990 AND 1991 FOREIGN COMMITMENTS TO THE U.S. 1/

(Millions of Dollars)

	Commitments			Receipts			Future Receipts
	1990	1991	Total	Cash 2/	In-kind	Total	
GCC STATES	6,845	29,000	35,845	8,827	1,716	10,543	25,302
SAUDI ARABIA	3,339	13,500	16,839	4,457	1,566	6,023	10,816
KUWAIT	2,506	13,500	16,006	3,500	10	3,510	12,496
UAE	1,000	2,000 3/	3,000	870	140	1,010	1,990
GERMANY	1,072	5,500	6,572	2,432	531	2,963	3,609
JAPAN	1,740 4/	9,000 5/	10,740	866	457	1,323	9,417
KOREA	80 6/	305	385	50	21	71	314
OTHERS	3		3		3	3	
TOTAL	9,740	43,805	53,545	12,175	2,728	14,903	38,642

1/ Data compiled by OMB. Sources of data: Commitments -- Defense, State, Treasury; Cash received--Treasury; Receipts and value of in-kind assistance -- Defense

2/ $1 billion has been released from the Defense Cooperation Account to Defense in accordance with the FY '91 Appropriations Act.

3/ An additional amount above the $2 billion is under discussion.

4/ Japan pledged $260 million to other coalition forces for total contributions of $2 billion.

5/ Under consideration by Diet.

6/ Korea pledged $15 million to other coalition forces for total contributions of $95 million.

DESERT SHIELD
Major Foreign Contributions
(U.S. $ Million)

Contributor	Commitments 1/	Receipts		
		Cash 2/	In-Kind 2/	Total
Saudi Arabia	16,839	4,536	2,388	6,924
Kuwait	16,006	5,500	16	5,516
UAE	4,000	1,870	179	2,049
Japan	10,740	866	633	1,499
Germany	6,572	4,092	629	4,721
Korea	385	50	28	78
Others	3	-	3	3
Total	**54,545**	**16,914**	**3,876**	**20,790**

1/ Commitments are through March 31 and do not include pledges to other countries.

2/ Cash received as of March 19; In-Kind as of February 28,1991.

SOVIET ARMS SALES IN GULF REGION

Senator INOUYE. One of the important elements in President Bush's plan for the postwar gulf calls for some sort of arms embargo in that area, and he has called upon all our friends not to sell. Well, we all know that the Soviet Union has been the major provider of arms for Iraq. Iraq, I believe, owes the Soviet Union about $6 billion at this time, and they have been doing a flourishing business up until the war.

The Soviet Union has thousands of tanks and artillery pieces that they withdrew from Central Europe. I am certain there must be great pressure to sell that somewhere—maybe Iraq. What sort of assurance have we received from the Soviets?

General POWELL. I am not sure I can tell you exactly what the assurances have been, Senator, because I have not been privy to all the conversations that have been taking place. But my impression is that the Soviets have indicated that they would not be involved in rearming Iraq to what Iraq looked like at the beginning of Operation Desert Storm. The Soviets have played a fairly responsible role in this crisis. They have supported the efforts of the coalition.

So I think we have considerable leverage in this matter to keep the Soviets from becoming a major arms supplier to Iraq again, and I think that is consistent with the Soviet interest to not be put in that position as well. So I am optimistic that we can keep the Soviets from becoming a major arms supplier to Iraq.

FUTURE OF RC ROUNDOUT BRIGADE CONCEPT

Senator INOUYE. This is to follow up on some of the questioning by my colleagues here. Does the nondeployment of Army Reserve combat roundout brigades to the gulf mean that the roundout concept and, therefore, the total force concept, is unworkable in a major ground combat unit?

General POWELL. No; I do not think so. I think it was too much to ask a combat unit of the type we are talking about, a brigade, to come on active duty and immediately be deployed to a theater that could go active any day. Most of our Reserve components, particularly those that are not combat, are able to do that, and combat service support activities, our National Guard and our Reserve pilots, our airlifter fleet is an easy transferrance of what they do in peacetime to what they do in war.

But combat units are far more complex organizations and 39 days a year simply does not allow you to train to the level of readiness required to be committed to an active theater. So I fully support the decision that we made.

Now that does not mean there is no role for roundout brigades and battalions in the future. In fact, what the Army is looking at is aligning them with those divisions that we would expect to go last to a contingency so that they would have that type of time for training.

Senator INOUYE. I think all of us will agree with your assessment, so my real question is, How long would it take to put a roundout brigade into combat?

General POWELL. If you take the 48th Brigade, which is in the process of finishing up its training and then should there have been a need for it we could have deployed it to the Persian Gulf, I think we are talking about several months.

Senator INOUYE. Six months?

General POWELL. I do not think it would take that long. In fact, I would like to really hold the answer because the Army is now making just such an assessment. We have examined very carefully the experience of these three brigades coming on active duty and how much time was necessary at the mobilization station and then sending them out to the National Training Center, which the 48th is now finishing up. But it is a matter of several months. I am not sure if it would take 6 months.

Senator INOUYE. I asked Secretary Atwood to provide us with an after-action analysis.

General POWELL. A very thorough one is being done.

Senator INOUYE. It is very important for our work here.

B–1 AND DESERT STORM

Now, some of us were wondering why we could not have used the B[illegible] in the desert. Can you tell us why we could not?

General POWELL. Principally we could satisfy our requirements with tactical air, as well as the B–52's. As you know, the B–1 was having an engine problem that is on its way to solution, but it was not flying at the time that the crisis came upon us. Further, we have not yet completely certified all the B–1's for conventional bombing. That is still an ongoing process.

Senator STEVENS. They are certified——

General POWELL. For nuclear, for the nuclear role; yes.

Senator INOUYE. We are going to be faced with two major issues. One will be the carrier situation. The other is the B–2. Some have suggested that with a greater B–2 fleet, with the stealth, smart weapons, they suggest less need for carriers. Would you agree with that?

General POWELL. No; I would not. I do not think the two capabilities should be compared. A carrier gives you tactical aircraft right on the scene that you can sortie quickly. In the case of Operation Desert Storm, we have six carriers there and we actually had at one point four up in the gulf, where they could run sorties very quickly back and forth, as opposed to an intercontinental bomber coming in from long distance.

Also, a carrier gives you presence in the region. It is a deterrent capability, there just over the horizon or not over the horizon, as you choose to have it. So I do not think the two capabilities are comparable. Carriers also give you an air-to-air capability that allows you to provide cover over a battlefield to protect that battlefield from enemy air, as well as giving you a ground attack capability.

So I would not compare the two.

AIRCRAFT CARRIER CUTS

Senator Inouye. We had over half of our operational carriers involved in Desert Storm. Keeping that in mind, do you think we should cut it down?

General Powell. I would like not to cut any carriers, but we cannot keep all the carriers and all the division and all the procurement and everything else I might like to do or the Chiefs might like to do within the budget numbers we have been given. The clear signal we have gotten over the last several years is that we are going to see a real decline every year, and the agreements that have been reached recently between the administration and the Congress give us no choice but to keep force structure going down. What we have tried to do is to find out the minimum level that we really think each service must have and not go below, and that is the base force numbers that you have seen us present in the 1992–93 budget. But I would be delighted to have a higher budget number. But that simply is not the hand I have been dealt.

COSTS OF TRAINING VERSUS ACTIVE CARRIERS

Senator Inouye. Could you tell us the difference in cost—I do not expect the numbers here today—of maintaining an active carrier and a training carrier?

General Powell. I would have to provide that for the record.

[The information follows:]

It is important to note that comparing the operating cost of a training carrier and an active deploying carrier is not possible for several reasons. Each has a separate mission that equates to differing operational and maintenance schedules.

In the case of the training carrier [AVT], 2- to 3-week carrier qualifications [CQ's] are conducted for the training command, and 1- to 2-week fleet CQ's are conducted for the fleet training squadron pilot qualifications. The size of the AVT crew is smaller than an active carrier [CV] since maintenance support for the airwing is not required. The AVT is maintained under phased maintenance availability [PMA] concept.

The active deploying carrier operates approximately on a 20-month cycle, and is forward deployed overseas approximately 6 months in that cycle. CV manning levels are higher than an AVT to support the combat missions and airwing maintenance support. Maintenance requirements are higher and consist of performing complex overhauls [COH] every 60 months for equipment restoration and improvements, and periodic selected restricted availabilities [SRA] to maintain equipage material condition.

Historical fiscal year 1990 data to operate both the training carrier and an active deployed carrier are as follows:

[In millions of dollars]

Ship	*Cost*
U.S.S. *Lexington* (AVT 16):	
Ship operations	12.5
Ship maintenance	6.7
Manpower	43.0
Total	62.2
U.S.S. *Forrestal* (CV 59):	
Ship operations	19.7
Ship maintenance (1 SRA)	45.3
Manpower	85.4
Total	150.4

Senator Inouye. I would suppose a training carrier would be cheaper, would it not?

General POWELL. Of course.

TIME TO CONVERT TRAINING CARRIER TO COMBAT STATUS

Senator INOUYE. Would you also let us know how long it would take to convert this training carrier into an active combat carrier?

General POWELL. Yes, sir. It depends, of course, on the carrier. The one we have used for many years, the *Lexington*, was never really configured to go back into combat operations. You can do certain things with a training carrier if you are not planning to recommit it to combat operations, which would make it less expensive to operate. So I will provide an assessment of that for the record.

[The information follows:]

U.S.S. *Forrestal* (CV 59) has been designated to become the training aircraft carrier and will replace U.S.S. *Lexington* (AVT 1) upon return from its overseas deployment. To perform her new role as the AVT, certain adjustments are necessary, such as, reducing the combat capability, reducing manning, implementing modifications to accommodate 50-percent women manning, and preparing equipment for layup or removal.

In the case of a declared national emergency which would necessitate regenerating the AVT to a full combat operational CV, it is estimated to take 6 to 9 months to prepare the carrier to commence full integrated airwing operations. This effort would include modernization, equipment depreservation, reinstallation of equipment, functional checks, rescrewing, and female crew member swapout.

Concurrent to this effort, the backup AVT would be brought out of mothballs in order to provide a training deck to perform the continued and vital carrier qualifications.

Senator INOUYE. I have a few more questions, but I notice Senator Specter is here.

Senator SPECTER. Thank you, Mr. Chairman.

There is one other area that I wanted to cover with you, General Powell, and it is not squarely within the purview of your testimony but very close, and that relates to Saddam Hussein and what we do with him at this point. I had many comments yesterday when I traveled in my State about our military objectives, public response of wonderment, why we fell short of solving the problem of Saddam Hussein. I explained about the U.N. mandate and the possibility of proceeding beyond and the difficulties in the Mideast and dealing with the Arabs, postwar, et cetera.

FUTURE OF SADDAM HUSSEIN

But I would be interested in your assessment, especially in this closed session, as to what you see happening to him and how we deal with that kind of a very real problem, both from the point of view of public dissatisfaction of having concluded a very successful war and leaving him in place, realizing limitations as to what we can do, and also how we handle that in the future, which is really not military but something which is within the purview of what you have to consider, among other things.

General POWELL. I think your first answer to your constituents was correct. It would have gone beyond the U.N. mandate, and it certainly was not the military mission that was assigned to the armed forces of the coalition. Our mission was to get the Iraqi army out of Kuwait.

Over the period of this crisis, the President made it clear that his argument was not with the people of Iraq and he was not targeting the current leader of the people of Iraq. Many Americans would have been happy a few weeks ago if there had been no war at all, and this very powerful Iraqi army had left Kuwait and merely retreated across the border. That would have been a satisfactory outcome at that time.

We now, I think, see, as a result of the conflict that we are in a far better position having taken the fourth largest army and having brought it down to size. I think Mr. Saddam Hussein, whether we target him or not, or whether there are people who say, fine, we have done so well, let's keep going to Baghdad and pull it all out by the roots, I think Mr. Saddam Hussein is in great difficulty. First, I think he is disgraced in the eyes of most of the Arab world, and the word would get out as to how serious a setback he has had and the debacle he has created and how poorly he has played his hand. So I think he will lose whatever little influence he truly had in the Arab world, and he will be seen for what he is—a loser.

Second, he now has major internal problems. I know you have been following the news. We have outbreaks of violence throughout the Shiia part of Iraq, the southern part of Iraq, and there is now evidence of disturbances up in the Kurdish area in the northeast corner of Iraq.

Senator SPECTER. May I interrupt to ask for your assessment, if you care to give one, as to the likelihood that he will be toppled by the Iraqi people?

General POWELL. I do not know how to assess that. He still has armed forces at his disposal. He will certainly try to stay in power. I do not know if those around him will convince him that he ought to leave or, failing to convince him, will kill him. So I do not know what the likelihood is of his being able to stay in power or not. I do know he is in a far more difficult position than he has ever been in before.

He has a totally defeated army streaming back home now. He is disgraced in the eyes of the world. I think he is a loser in the eyes of the Arab world. And now he has several rebellions going on within the country. If he survives that, he will be on top of a nation that will have to spend the next 5 to 10 years rebuilding the infrastructure that the U.S. Air Force and coalition air forces took out earlier in this campaign. And I think he will have to spend most of his time worrying about how to rebuild his country and keep it together than he will on how to go about invading his neighbors.

So I would just as soon see Mr. Saddam Hussein and the whole Baath Party crowd leave office, although I cannot tell you what would replace them. There is no Jeffersonian democrat waiting in beautiful downtown Baghdad to bring democracy to Iraq of the type that we would like.

You never know what devil is going to replace the devil that has been shot, but I would still like to see Saddam Hussein leave. But if he does not leave, I do not think we should wear that as a hair shirt or as evidence of a failure on our part.

I think it would be quite a different Iraqi regime and quite a different Saddam Hussein if he survives all the challenges he is currently under, and he does not present the same kind of threat to the region he has presented in the past.

FUTURE OF PHILADELPHIA NAVAL SHIPYARD AND V–22

Senator SPECTER. Let me lump into one final question two issues which have certain parochial aspects for a Pennsylvania Senator that also have, in my judgment, a very substantial national security implication. One is the Philadelphia Navy Yard, which is adept at many lines but especially for service life extension. If we are to have a 14-carrier fleet or even a 12-carrier fleet, there are strong arguments about its indispensible nature, considering again the deployment of carriers being so vital in the gulf war.

And the second issue is the V–22, which has had enormous support in the Congress and the refusal of the Department of Defense to expend the funds and on the V–22 I am not directing the issue to necessity as much as to the governmental issue of the functions of the executive and legislative authority, where Congress passes a bill and the President signs it and DOD ignores it, and then Congress comes back and says put that money back in and the President signs it and DOD again ignores it.

Where do you think we end up on the delicate balance between legislative and executive authority?

General POWELL. With respect to the V–22, first let me say, as the Secretary has said many times, it is a fascinating program and it is a program that was moving along pretty well, but at the time he had to make a decision with respect to budget levels he found it a program that could not fit in at that time, and he terminated it and has no intention of restarting it.

With respect to whether he is acting in violation of congressional direction, I know the Secretary very well and I believe he thinks he is discharging his responsibilities in a way that is totally consistent with the law. I would simply have to leave the matter at that point and leave it as a matter that the Congress has to take up with Secretary Cheney or Secretary Atwood.

With respect to the Philadelphia Naval Shipyard, they have done fine work in the SLEP Program over the years. The question is the declining force structure, and with the mix of new carriers and carriers going out of the force do we continue to need to SLEP carriers. That is a judgment that has to be made both on the basis of cost and the basis of residual force structure and on the basis of keeping an industrial base.

It is going to be a tough decision for the Navy to make.

Senator SPECTER. Thank you very much, Mr. Chairman.

PREPOSITIONING SHIPS IN DESERT STORM

Senator INOUYE. Following up on the questions of Senator Stevens, if my recollection is correct, we had nine prepositioned ships, did we not?

General POWELL. I would have to supply for the record. I just do not have it on the top of my head.

[The information follows:]

We have a total of 25 pre-positioned ships in two programs: the Maritime Pre-positioned Ships [MPS] and the Afloat Pre-positioned Force [APF]. Thirteen are MPS that support the Marine Corps and are regionally deployed in 3 squadrons worldwide. The remaining twelve APF ships operate out of Diego Garcia and include 4 tankers and 8 dry cargo ships that support the Army, Navy and Air Force.

Senator INOUYE. Four or five in Diego Garcia and the rest in Guam.

General POWELL. And some on the east coast.

Senator INOUYE. According to the briefings we have been receiving, especially in Riyadh, this was an important part of the whole operation because it made it possible for our troops to marry up and be there as soon as possible.

General POWELL. Yes.

Senator INOUYE. In the O&M account I suppose you have some prepositioning money.

General POWELL. Yes.

SEALIFT PROCUREMENT

Senator INOUYE. Do you plan to have more prepositioned ships? Because if you do then we need to provide money for ships.

General POWELL. We have a mobility requirements study that is almost finished. I was briefed on it last week. As you know, Senator, Congress has provided us some money for additional sealift, and we have looked at a variety of options—more MPF's, more APF's, both prepositioning, or more roll-on/roll-off.

I am more intrigued now by purchasing additional roll-on/roll-off—almost fast sealift. We do not need 35-knot ships, but something that moves pretty well. I would like to give you a more informed answer to your question after I have been totally briefed on that study that has been approved by the Department. I am not sure the right solution is more maritime prepositioning of ships.

Senator INOUYE. Because we are going to be faced with the real world, which requires us to cut it down. We like to assist you in providing for a fast, lean, tough, with all the technology possible type force. So, No. 1, if you could give us the numbers as to what it would cost if we delayed this 5-year plan.

General POWELL. The end strength piece of it; yes.

Senator INOUYE. Also, this prepositioning, if you need extra money. I realize, and I think all of us realize, that as a good soldier you get your orders and you have to support the Commander-in-Chief, but we are not bound by that discipline. If you could provide us with information as to what it would take to meet another contingency like Desert Storm/Desert Shield, it would be very helpful—the numbers of divisions, for example, seven, in Desert Storm and five overseas, which leaves zero for the continental United States, frightens us, and we are not spendthrifts on this committee.

Notwithstanding all of the plans that have been made on projections now in the presentation by Secretary Atwood, he said something to the effect that we could not foresee any problems ahead of us up until 1997. A year ago, we were all set to wipe out CENTCOM. That was not a rumor; that was in the works. A year ago, we had Senators coming back singing the praises of Saddam Hussein. A year ago this Congress turned down an effort by some of us to impose sanctions on him, and then we found ourselves in this deadly war.

You know, I am not a magician. I do not know what is going to be happening 2 years from now or 6 months from now, but it does concern us to see it go down to a level where we might find ourselves hard-pressed to even involve ourselves in another Desert Storm.

Senator STEVENS. Mr. Chairman, could I ask one other question?

General POWELL. I certainly share your concern, Mr. Chairman, and I think over the past 17 months Secretary Cheney and I have appeared before this committee and many other committees of Congress, and in speeches and in various presentations have provided what I thought was a very spirited and adequate defense for a higher spending level with a higher force structure and higher procurement accounts to build at that higher spending level.

We were trying to keep it first at small real growth, and then we fought for the good part of last year to keep it at minus-2 percent, a steady glide path down, to no avail. We were given agreements to take us much lower than that projected glide path, and now we are faced with dealing with the reality of that.

Obviously if Desert Storm had come along in 5 years, we would not handle it the way we are handling it this time. We would not have been able to send seven Army plus two Marine divisions. We would have to handle it a little differently. It might have taken a much longer time to build up, with consequences that I cannot imagine.

It is also true that Iraq for the foreseeable future is no longer an offensive force and there will be many in the Congress who say, well, now you have gotten rid of that one maybe we could even take more force structure; Powell, you are running out of villains. You know, you got rid of Noriega, you got rid of the Soviet army, and now you have gotten rid of Saddam Hussein.

I keep reminding them the world is still a dangerous place, and that it is our responsibility to try to keep in place a good force structure, well maintained, with proper readiness accounts and training accounts, so that when the unknown comes along we are prepared to respond. But, as you say, Mr. Chairman, I have to bring this proposal to you consistent with the Budget Summit Agreement that has been arrived at.

And should a decision be made to change those numbers, we can spend more money in an absolutely responsible way and justify our case very, very adequately.

REMAINING SCUD MISSILE INVENTORY IN IRAQ

Senator STEVENS. What do we know about the Scuds, how many of them are left, how many launchers? Have we got somebody still looking for those things?

General POWELL. I have no idea. We are still flying reconnaissance and we may still learn a little bit more. But we have no real idea as to how many there were to begin with, either launchers or missiles, or how many are remaining now. It is still a latent threat that exists against the nations in the region. I am reasonably sure, however, that Iraq would not use any of those weapons systems, and they have given us assurances in the ceasefire discussions that General Schwarzkopf had with the Iraqis that they would not be using any of those.

Senator STEVENS. That was raised?

General POWELL. It was raised; the question was, "You are not going to use any more of these, that is part of the deal." And the answer was, of course not. They are not looking to get the ceasefire broken or to start anything for the forseeable future. But, nevertheless, there are Scuds and Scud launchers still within the Iraqi inventory.

Senator STEVENS. With this Shiite uprising, fundamentalist control of that country would be total anathema to the region, I think. It worries me that they might still have Scuds, Scud launchers, and chemical warheads that we have all had nightmares about. We never did find any, did we?

General POWELL. No, sir.

Senator STEVENS. Thank you very much. You have done a hell of a good job, I will tell you that, General, no question about that.

Senator INOUYE. Before we adjourn, I would like to remind all of those on the Senate staff to leave their notes here, leave them with Mary Marshall, because this is a classified hearing.

General Powell, I thank you very much for your insights and observations. As always, it has been very helpful.

You have given us much to think about in many ways. I hope that we can assist you in leading a military force that can face up to these contingencies that we have just concluded, and I can assure you that we are going to do our best.

ADDITIONAL COMMITTEE QUESTIONS

[CLERK'S NOTE.— Additional questions submitted by subcommittee members, together with the Department's responses, will appear in the appendix portion of the hearings.]

SUBCOMMITTEE RECESS

Senator INOUYE. Tomorrow we will convene at 9 a.m., in room S–192, at which time we will hear from Secretary Stone and General Carl Vuono, the Army Chief of Staff.

Thank you very much.

General POWELL. Thank you for your courtesy, Mr. Chairman.

[Whereupon, at 11:40 a.m., Tuesday, March 5, the subcommittee was recessed, to reconvene at 9 a.m., Wednesday, March 6.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1992

WEDNESDAY, MARCH 6, 1991

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:05 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Daniel K. Inouye (chairman) presiding.

Present: Senators Inouye, Johnston, DeConcini, Bumpers, Lautenberg, Stevens, D'Amato, Rudman, Cochran, and Specter.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

STATEMENTS OF:

HON. MICHAEL P.W. STONE, SECRETARY OF THE ARMY
GEN. CARL E. VUONO, CHIEF OF STAFF, U.S. ARMY

OPENING STATEMENT OF SENATOR INOUYE

Senator INOUYE. This morning the Subcommittee on Defense, Committee on Appropriations, will receive testimony from the Hon. Michael P.W. Stone, the Secretary of the Army, and General Carl E. Vuono, Chief of Staff, on the fiscal year 1992 budget.

On behalf of the committee, Mr. Secretary, General Vuono, welcome. It is always a pleasure to have both of you appear before the committee.

Mr. Secretary, since your first appearance before this committee last year, we have witnessed many grave and pivotal events which have tempered much of the excitement over the leveling of the Wall and the collapse of the Warsaw Pact. War in the Persian Gulf, internal problems in the Soviet Union, the economic and fiscal challenges within our own country, all of these compel us to consider alternative approaches to providing both national and international security and to examine the role the U.S. Army will play in meeting those objectives.

Last year Congress approved significant reductions to the Armed Forces as the first step towards significantly reducing total force structure by fiscal year 1995. Your current budget request anticipated a reduced force structure profile by the end of fiscal year 1995. I recognize this drawdown is needed to stay within the limits provided for defense spending in the summit agreement.

Nevertheless, I am concerned that the force structure proposed by the Department will seriously impair the ability of our Nation to provide the military presence necessary to avert destabilizing forces from disrupting global relations.

If the current budget projections remain in place, greater burdens will be placed on the readiness of the Active Force and on the rapid mobilization capability of our Guard and Reserve forces. The total force concept appears to have experienced some problems during the Operation Desert Storm. It will take several months to determine how the total force strategy has to be modified.

Moreover, as the mix of Active and Reserve forces continues to change, we will have to be diligent in ensuring that this restructuring of our military forces does not adversely impact our national and global security responsibilities.

So, therefore, Mr. Secretary, I will be very interested in your views concerning Army force structure in the future and how you will reorganize this force to fulfill our world-wide missions. I am also interested to know how Operation Desert Storm requirements will impact your ability to meet scheduled force structure reductions through 1995.

The committee is also concerned with the allocation of investment funding for the Army over the 5-year defense plan. And in this context, investment funding is comprised of the R&D and procurement accounts. The budget before us significantly decreases the Army's investment funding to the lowest level in recent history. This reduction translates into a massive shift of investment resources from conventional to strategic forces, which appears to fly in the face of current international security realities.

This committee must question the wisdom of these decisions and would like your views on how the Army will cope with this proportionately decreasing levels of investment resources. In other words, how will the Army modernize?

The budget proposes the termination of 18 programs. Of note are the M–1A1 Abrams tank, the Bradley fighting vehicle, ground launch tactic Rainbow, and non-line-of-sight missile. These terminations continue the Army decision to reduce procurement and modernization programs while pursuing an ambitious research and development schedule, specifically the LHX and the armored system modernization programs.

Mr. Secretary, General, we have reviewed your statements and they will be made part of the permanent record.

Secretary Secretary, you may proceed as you wish.

OPENING REMARKS OF SECRETARY STONE

Secretary STONE. Thank you, Mr. Chairman. It is a pleasure to be with you and the subcommittee this morning.

As I offer a few opening remarks, what I want to say in my appearance today should be cast against a background of several noteworthy factors that I would like to mention to you before the hearing commences.

EMERGING REALITIES OF THE WORLD

First, General Powell has talked of the emerging and enduring realities of the world and Secretary Cheney, using other words, has described a similar scenario. I will not recapitulate their points except to reiterate that the Army, too, recognizes, first, the sweeping changes that have taken place in the world—one of the emerging factors that the Secretary and the Chairman mentioned. And, second, the further emerging reality that our defense budget and the resources available to us will continue to decline for the foreseeable future.

However, those emerging realities have to be viewed from the perspective that the Army has, for the first 5 months of this fiscal year, been involved in reconciling the paradox that exists between those realities and another reality, which has been the predominant need for the Army to do its share of furthering United States policies in the Middle East, something which, I believe, we have done and rather successfully, too.

That paradox has involved our adding force structure to the Army and not continuing to reduce it as the emerging realities will require us eventually to do. We have not been able to adhere to our schedule for beginning to make both unit and infrastructure reductions in Germany on the scale that we had wished. We have had to surge the procurement of goods and services. These factors comprise the paradox we encounter as we try to reconcile today's world with those emerging realities.

BASIC MILITARY SUPPORTING CAPABILITIES

Secretary Cheney and Chairman Powell, in talking of enduring realities, have spoken also of the basic military supporting capabilities needed by the Armed Forces to operate in the world in which those realities endure. The most important of those capabilities, in my opinion, is for the Armed Forces to retain the superb quality that has been built into them during the last decade.

Quality, in all its aspects, is the hallmark of readiness and training and also our fundamental ability to defend the country's interests. As such, quality then must be retained as we adjust to these emerging realities.

MODERNIZATION

I now want to comment briefly on two specific issues: modernization and the Army's Reserve components. In discussing modernization, which you have already addressed in your opening remarks, Mr. Chairman, I will not introduce at this stage any specific program, because I believe that your colleagues will have some questions specifically for me. I will merely mention, at this juncture, some figures that to me are stark in their clarity of meaning and grave in their implications for the Army; again, reflecting your own statement of a moment ago.

The Army's procurement account in the last few years has reflected the following funding levels: in fiscal year 1990, $14.3 billion; in fiscal year 1991, $9 billion; in fiscal year 1992, $8 billion; and in fiscal year 1993, $7.6 billion. That trend line is alarming. Even though the numbers need minor adjustment to ensure comparability between the years, the message is clear. The Army simply cannot bear its functional share of national responsibilities and confront those enduring realities that I have been talking about if that trend continues.

I ask this committee, both today and in the ensuing budget cycle, to take into consideration the Army's needs to maintain and enhance its technical prowess.

RESERVE COMPONENTS

As we all know, the concept of the citizen soldier as a part of our country's social fabric has been in place for well over 200 years. And it will continue to be. The embodiment of that concept is the National Guard and the Reserves. Over 1,000 units of the Army's Reserve components have been mobilized during the last 6 months and have served, more than two-thirds of them, in the Persian Gulf with great distinction.

I believe that 1991, and probably 1992 as well, are going to be extremely important and difficult years for the Reserve components. In fact, the issues involved in the Army's management of its elements of the Reserve components are, in my opinion, going to be as difficult a problem as the Army will have to face.

The problems entail issues on the total force structure, the size, the organization within the total Army, and command and control. Congress and the Pentagon have not always seen eye to eye on these issues, and we will have to join together to resolve them.

In conclusion, let me reiterate the theme of my last assertion. I look forward to working with Congress and this committee in the resolution of the problems that I have briefly mentioned and those that I have not mentioned at all. Working together, I am confident that we can achieve a resolution that preserves the strength and character of the Army that has served the United States so capably and so magnificently during the past 5 months and that the United States will doubtlessly need again in the future.

Mr. Chairman, as I finish my prepared remarks, I would like to note one other personal matter. And that is that the Chief of Staff of the Army, General Vuono, may be making his last official appearance before your subcommittee. As such, I want to recognize his indefatigable and tireless efforts on behalf of the Army. He is a man for whom I have enormous respect. I consider him more than just a colleague, he is a close personal friend. What he has contributed to the Army has been vindicated and seen during the last few months.

[The statement follows:]

STATEMENT OF HON. MICHAEL P.W. STONE

Mr. Chairman and members of the committee, it is an honor to appear again before the Committee to report on the Army's achievements and to outline the Army's plans and challenges for the coming years. Although we have been challenged over the past year, we have met those challenges and have answered the nation's call both at home and abroad with distinction.

Last year at this time, we spoke of Operation "Just Cause" and its impact on the Army and the nation. While clearly a challenge that was met head-on with dispatch and professionalism, that operation is dwarfed by the ongoing conflict in Southwest Asia. Operation "Desert Storm," the largest deployment of United States soldiers since Vietnam, clearly demonstrates that the Army is a strategic force fully capable of meeting a wide range of contingencies on short notice, of performing in the Joint and Combined arena, and of providing highly capable forces to the warfighting commanders in chief (CINCs).

My concluding remarks to you last year included the statement, "We are ready to face the challenges of the future." The events that have occurred in Saudi Arabia over the past six months and your Army's response to them validates that statement. Our response is a reaffirmation and validation of the six fundamental imperatives that have guided and will continue to guide the Army's development—quality soldiers and civilians, forward-looking warfighting doctrine, an appropriate mix of forces, tough and realistic training, necessary focused modernization, and competent, confident leaders.

CSA LEGACY—THE SIX IMPERATIVES

The trained and ready Army that you see deployed around the world today is a result of the cooperation, sacrifices, and hard work of many persons in and out of uniform. No one has been more instrumental in shaping that force than our Army Chief of Staff, General Carl E. Vuono. As you know, he completes his fourth year as Chief this summer after orchestrating some of the most dramatic changes in our Army's history. Those changes reflect and embody the six imperatives mentioned earlier. Each of them requires comment.

QUALITY

The quality of our men and women is the sine qua non that is the cornerstone of the Army. This single intangible characteristic enables us to fulfill our worldwide strategic roles. During the past four years, the percentage of high school graduates accessed in the Army has risen from about 90 percent to over 95 percent. Other considerations help attract and retain a quality force. The establishment of the Army Communities of Excellence program is an example. So is the program to construct 59 Child Development Centers and 28 Physical Fitness Training Centers and to modernize or construct over 25,100 barracks spaces during the past four years. Recruiting and retaining talented men and women—the best that our nation has to offer—must continue to be the Army's top priority.

DOCTRINE

The twin doctrines of AirLand Battle and AirLand Battle-Future form the basic rationale for leader development, force design, material requirements, and training focus. General Vuono has put his personal stamp on the development and revalidation of much of the Army's doctrine particularly in the area of Training and of Low Intensity Conflict.

FORCE MIX

In an effort to maintain the appropriate mix of armored, light and special operations forces in the Active and Reserve Components, significant restructuring of the force has been accomplished under General Vuono's direction. Faced with the need to reduce the force due to a changing international environment and diminishing resources for defense, the Army has begun to shape the force of the future. Brigades from the 9th and 4th Infantry Divisions and the 2nd Armored Division have been inactivated, and the 194th Separate Armored Brigade has been reorganized into an armored battalion task force. Current Army plans call for further reductions toward a smaller, yet capable force.

TRAINING

Training prepares soldiers, leaders, and units to fight and win in combat—our basic mission. General Vuono's unrelenting challenge to the Army has been to demand tough and realistic training for our soldiers. The successes of Operations Just Cause and Desert Storm to date demonstrate that his challenge has been met. The Army also has shown the excellence of its training standard in numerous international competitions over the past four years. In events ranging from individual marksmanship to tank gunnery, the Army has excelled. Significant team results have included: the Boeselager Cup (a gunnery event for cavalry units), first place 1987, 1988, and 1990; World Helicopter Championship, first place 1990; and the Australian Army Skill at Arms Meeting, second place 1988, first place 1990. Central to the Army's strategy of maintaining highly trained leaders and soldiers are the combat training centers: the National Training Center at Fort Irwin, California; the Joint Readiness Training Center currently at Fort Chaffee, Arkansas; the Combat Maneuver Training Center at Hohenfels, Germany; and the Battle Command Training Program operating from Fort Leavenworth, Kansas. These programs have made a great contribution to improving and sustaining the professionalism and warfighting ability of the Total Army.

MODERNIZATION

We are witnessing daily, as we follow the progress of Desert Storm, the payoff of the Army's modernization investments made over the past years. Key battlefield systems fielded during the 1980's and proving their worth today in the test of combat include: the Apache helicopter, the Abrams tank, the Bradley fighting vehicle, the Multiple Launched Rocket System, Army Tactical Missile System, and the Patriot air defense system.

LEADER DEVELOPMENT

There is no substitute for leaders who are competent in their profession, responsible for their soldiers, and committed to the defense of their nation. Leader development involves the Total Army—officers, noncommissioned officers, and civilians of both the Active and Reserve Components. Over the past four years, almost 20,000 students have graduated from the Army's top professional development schools. Additionally, the other programs continue to provide the Reserve Component and our civilian leaders the same type of quality education provided to our soldiers.

Operation Desert Storm and its precursor, Desert Shield, represent your Army at its best—from the initial deployment of the 82nd Airborne Division's Ready Brigade within 31 hours of the nation's call, to the current commitment of over 275,000 young men and women, the embodiment of those Imperatives. "Trained and Ready" typifies their posture, as it does the posture of other soldiers stationed here in the United States or deployed around the world in places like Korea, Latin America, and Western Europe. All have volunteered to defend our nation; all are prepared to support our national objectives.

As he looks at today's Army, General Vuono can take justifiable pride in the large role he played in building that Army. I chose to salute him publicly, in this forum, for his vision, his tireless efforts, and his selfless dedication to his Army and nation.

BEYOND DESERT SHIELD/STORM

Now let's turn to some other significant events of 1990.

Our forward-deployed forces in Europe and Asia have maintained a high state of readiness and continue to act as a deterrent against aggression. Some USAREUR forces are deployed in support of Desert Storm while others maintain vigilance in Western Europe. Meanwhile our soldiers in Korea guard our national interests in that part of the world, as do our forces in Panama.

Reaffirming the bilateral agreement with the Soviet Union to reduce stockpiles of chemical weapons, the Army, acting as the Department of Defense Executive Agent, successfully removed over 100,000 chemical projectiles from Europe and delivered them to Johnston Island in the Pacific for destruction.

As a means of promoting security and stability in regions throughout the world, the Army's security assistance program provided support to 132 foreign countries and to 7 international organizations. The effectiveness of such support can be seen in the improved readiness status of several of the coalition forces in Southwest Asia after the United States transferred, through the security assistance program, substantial amounts of military material.

Equally important to the nation's needs was the Army's continued support to civilian authorities within the United States. During the past year, soldiers have assisted local communities in flood and tornado relief and in fighting numerous forest fires in the West and South. Additionally, over 2,000 soldiers from the Active and Reserve Components participated daily in the execution of the Army's portion of the Department of Defense's national drug control strategy.

The Army has improved management efficiency with the implementation of DOD's Defense Management Report initiatives. The streamlining of the acquisition process, the development of the Army Acquisition Corps, and other initiatives will result in substantial savings during fiscal years 1991–95, and the initial benefits were seen in fiscal year 1990.

I want to touch on just a few of the other management efficiency efforts designed to support the Army during the next decade, including: environmental enhancement, Base Realignment and Closure actions, Army Communities of Excellence, and civilian personnel modernization.

The Army is committed to the prevention of environmental damage and the protection and stewardship of the environment. After a critical self-review, the Army spent $187 million during 1990 on evaluating and cleaning up contamination caused by past practices and an additional $200 million to meet current regulatory requirements. Under the Army's Installation Restoration Program, remedial cleanup work was completed at 130 sites during the past year. Likewise, work is underway in the Formerly Used Defense Sites Program, for which the Army is the executive agent, with remedial action completed at 365 sites.

We continue to seek greater efficiencies in stationing forces both at home and overseas. The Army's Base Realignment and Closure initiatives will allow the Army to close uneconomical and inefficient installations and to consolidate major headquarters or functional missions.

The Army Communities of Excellence (ACOE) program continues to improve our soldiers' quality of life as it works to improve community services and foster community excellence. The ACOE program makes an unambiguous contribution to promoting and sustaining a quality and ready force.

The Army's Civilian Modernization Plan represents a commitment to continuing the investment we have made in building a trained and ready civilian work force. One initiative, the Army's Civilian Leader Development Program, which was fully implemented during fiscal year 1990, provides direction for the progressive and sequential development of civilian leaders from entry level to Senior Executive Service positions.

TOMORROW'S VISION

The Army's vision of the future is predicated on the realities of a changing world environment. The focus of United States security strategy has shifted away from one based on containment of the Soviet Union by forward defense to one based on achieving our objectives by forward presence supported by the projection of military power from the United States. This change in focus requires the Army to restructure its forces and to adjust its strategic roles in support of the new strategy.

While the Soviet Union's attitude toward the West has shifted positively, thus reducing the probability of confrontation, the recent use of military force in the Baltic States to quell dissent indicates a need for a balance of U.S. optimism and concern. Soviet focus remains inward, toward restructuring, but their conventional and nuclear weapons modernization efforts continue. We must continue to view the events in Moscow, as we have in the past, with an eye toward the Soviet's capabilities, not their stated intentions.

Despite the reduced probability of East-West conflict, the war in the Middle East clearly emphasizes the fact that significant threats remain in many regions of the world where the United States has interests. Regional instability in areas such as Latin America, the proliferation of nuclear, chemical, and missile technology to developing nations, and aggressive, well-armed regional powers such as Iraq pose multiple challenges to United States' interests. Additionally, the continuing flow of illicit drugs into the country threaten the safety and security of the nation at home. International terrorism remains a threat that not only affects the United States, but the world.

Our challenge now is to maintain our present defense capabilities while simultaneously moving in three directions. We must and we will continue to provide support to the servicemen and women, both active and reserve, demonstrating their courage and conviction in Operation Desert Storm. While we focus on the operation in Southwest Asia, we must not lose sight of the total Army, and our responsibility to sustain a global force—trained and ready to meet any contingency worldwide. We move in these directions while we reshape the Army in light of the changing international environment and diminished resources available for national defense.

While the challenge of pursuing three simultaneous courses is formidable, there are also other challenges that confront the Army over the next few years that must be met. Modernizing equipment in an era of declining resources, managing our force structure, and keeping operating costs under control represent the type of problems we face.

The Army's modernization efforts will focus on improving the versatility, deployability, and lethality of our equipment to enable our soldiers to fight successfully wherever U.S. interests are threatened. In years past, the Army developed the equipment that is being used today in Operation Desert Storm: Patriot, Apache, Abrams, Bradley, and the HMMWV. The Patriot missile system has gained its baptism under fire and has excelled. The Apache helicopter has also proven the wisdom of our vision, as it continues to be the fully capable tank killer that it was designed to be. Our Abrams tanks and Bradley fighting vehicles have joined the battle and are performing extremely well. The forgotten hero of the Gulf War is the HMMWV truck, the replacement vehicle for the old ¼ton jeep. It is the main means of transportation for a majority of our forces and has proven to be very reliable. Past investments have paid big dividends.

With your support, our future investments will pay similar dividends. Tough choices must be made and priorities issued for the systems of tomorrow. The Army's modernization priorities include: Light Helicopter, Armored Systems Modernization, armor-antiarmor, forward-area air defense, deep attack, and command and control.

Army modernization is a continuous process that reflects strategy, doctrine, and technological progress. Aggressive research and development of key advanced technologies and the protection of our technology and production bases will, in the long-term, provide the best warfighting capabilities for the money spent.

Managing people, the quality soldiers and civilians that serve so valiantly today, will be a major challenge in the uncertain times ahead. Operation Desert Storm has introduced some extraordinary requirements for manpower that has caused the Army to increase temporarily in strength. "Stop loss" programs continue to add 3000–4000 soldiers a month to the total end strength, while Reserve Component soldiers are still being called to active duty. The result is that, despite Congressional mandates that the Army reduce end strength, the Army has had to grow temporarily. The Army's drawdown plan to meet future end strength requirements is sound, but needs time to execute.

As we take strides to reduce the force, we must make sure that we don't destroy what we have built over the past 17 years. The All-Volunteer force that we have today is responsible for the Army's successes. To reduce that force too rapidly or with too little thought for our soldiers' welfare would be an injustice and would be a sorry reward for their efforts in the Gulf.

Our top priority is to maintain the quality of the force. We must maintain the high standards that we have established, both for those who wish to enter the Army for short enlistments and for those who wish to remain for a career. We are committed to taking care of the soldiers, civilians and their families during the transition by retaining sufficient quality of life programs, a proper flow of promotions, and adequate career opportunities.

The 1992/1993 President's budget reflects the Army's recognition of the changes in the world environment and the fiscal realities facing our nation. It is a budget that will maintain a quality force in terms of people and equipment. We pledged last year to provide this country with a force that would be fully capable of meeting any contingency anywhere in the world. Operations JUST CAUSE and DESERT STORM provide unambiguous proof that we have met that pledge.

We remain committed to protecting the character of our force by remaining sensitive to quality of life, training them to the highest standards possible, and providing them with the best equipment. The future Army will be smaller but, with your help, no less capable. The 1992/1993 budget is formulated to ensure that the Army remains a viable and potent force. Your support of our soldiers in the Gulf means a lot to them, and your support of their future will mean even more.

CONCLUSION

Your Army today has drawn its strength and character from the traditions and achievements of the past. Throughout its history, the Army has been the nation's loyal servant at home as well as in overseas locations. It has been an organized, disciplined resource that the nation could rely on to do whatever had to be done. During peacetime, the American people knew that they could count on their Army to take care of priorities at home, and when trouble broke out overseas, the Army was trained and ready to fight.

Our soldiers today are a priceless asset that the nation can count on. These soldiers are a testimony to the success of the policies and programs designed to train and equip an Army that can stand up to any threat, any time, any place, and under any conditions.

The American people must always know that they can count on their Army as a stabilizing force abroad and as a resource at home. Together, America and its Army can continue to provide for the common defense while helping to strengthen our position abroad and improving our lives at home.

Mr. Chairman, thank you for the opportunity to tell you and your committee of the magnificent men and women that serve the cause of peace around the world. It is because of their dedication to this nation's ideals that your Army is the best in our nation's history. I will be happy to address your questions.

INTRODUCTION OF GENERAL VUONO

Senator INOUYE. General Vuono, I join the Secretary in commending you for the work and the service you have rendered to the country. I think your leadership was amply demonstrated by the results of Operation Desert Storm. I congratulate you, sir, and if you have any statement——

OPENING REMARKS OF GENERAL VUONO

General VUONO. Yes; I would like to, Mr. Chairman. It is a privilege for me once again to appear before this subcommittee. Yet there is a striking irony in testifying this morning on the Army's future, basically on our blueprint for reducing the Army to its smallest size since World War II, while the United States has over 500,000 men and women, of which the Army has over 300,000, deployed on the Arabian Peninsula.

Just 2 weeks ago, the United States and its coalition partners faced more than 43 Iraqi divisions, thousands of tanks, and over 500,000 Iraqi soldiers in the Kuwaiti theater of operation. One hundred hours later, the Iraqi army lay shattered and burning and organized resistance had ceased. I do not believe any other military in the world could have planned and executed such a devastating air, land, and sea campaign.

DESERT STORM

Speaking specifically of the Army of Desert Storm, it was built over the years on uncompromising adherence to what I call six fundamental imperatives. Our quality soldiers are guided by effective war-fighting doctrine, trained to a razor's edge, and have the best equipment that we can put in their hands. We have the right mix of Active and Reserve forces, and we have the right sergeants and officers. These imperatives guide the Army today and serve as a beacon as we move into the future.

We clearly would not be where we are today without the support of you, Mr. Chairman, and the entire committee, the American people, and the magnificent performance of our men and women—Active and Reserve—not just in the gulf, but those who have supported that effort throughtout the world over the past 7 months. Together, I think we have provided the Nation with an indispensable instrument of national policy and an Army which all of us can be justifiably proud.

THREE MAJOR VECTORS

Today, the Army is focused on what I call three major vectors. First, we must provide all the support necessary to accomplish U.S. national objectives in Operation Desert Storm. This includes properly redeploying and reconstituting our victorious forces. Second, we must maintain a trained and ready force to meet ongoing commitments worldwide and for rapid action in unforeseeable contingencies. And, finally, we must continue to shape the Army for the future.

I cannot overemphasize to you, Mr. Chairman, the need for a prudent and managed reconstitution of the Army of Operation

Desert Storm, that includes a return of our forces to Europe. Facing an almost 30-percent reduction in the size of the Army by the mid-1990's, it is imperative that we start off on the right foot.

Even as we focus on the aftermath of Operation Desert Storm, we must sustain the readiness of our forces worldwide. You know, within the last 14 months we have committed Army forces to combat twice. Both operations required rapid short-notice projection of substantial land combat power from the United States, and, in the case of Desert Storm, also from Europe.

Now, let me give you an example of how ready our forces must be. One Patriot unit deployed from Europe to Israel and was operational in less than 20 hours from the time the alert order was issued. That does not leave much time for correcting readiness deficiencies.

Finally, the third vector, we must commit ourselves to a comprehensive plan for reshaping the Army and to our vision for the future—a trained and ready Army to defend vital U.S. interests wherever they might be threatened.

Our original plan, which we laid out to the committee last year, has proven remarkably resilient. You will recall we concluded that the evolving international environment would require an Army with three fundamental characteristics: versatility, deployability, and lethality. These characteristics, along with a requirement to expand the Army as a hedge against the uncertain future, continue to form the basis for our efforts to reshape the Army.

CHANGES IN STRATEGY

We have adjusted this plan based on the changes in our national military strategy that have already been discussed by the Secretary and previous witnesses. These changes in strategy have fundamental implications for the Army, and they are treated at length in my written statement, so I will just touch on the essence of the new strategy—a visible, capable power projection capability.

Such a strategy cannot be executed without a trained and ready force and without adequate strategic lift. These capabilities will be central to the Nation's continued ability to deter aggression and defend our national interests worldwide.

When our planned builddown is completed, the Army of the mid-1990's will be a perilously small ground force for a Nation with superpower responsibilities. At these force levels, it will be essential to minimize the risks inherent in a smaller force by limiting the turbulence created by rapid force reductions. Our plans are aimed at accomplishing this vital objective. However, as we have discussed, we are going to need some relief in adjusting our projected force reduction ramp as a result of Operation Desert Storm.

LESSONS HISTORY TEACHES

I want to take you back in history, because we learn lessons, sometimes tragically, that we must remember. History has taught us that we cannot expect to field ready forces for unexpected contingencies or to quickly rebuild a quality force if we squander the quality and the readiness of our current force.

You remember World War II very well. In the 5 years following World War II, the Army was reduced in size by 7.5 million men, including over 60,000 in the 18 months just prior to the start of the Korean war. This rapid builddown, combined with tight postwar budgets, fractured the victorious Army of World War II. At the start of the Korean war in 1950, the U.S. Army was unprepared, ill-equipped, and undermanned. Our Nation had clearly lost its vision of a trained and ready Army.

What was that price of short-sightedness? On July 6, 1950, lead elements of the 24th Infantry Division were attacked by a North Korean division. While its soldiers fought magnificently and bravely with outdated, ineffective weapons, the lead unit—Task Force Smith—was quickly penetrated by North Korean tanks, including one tank that had been hit at least 22 times by a U.S. bazooka fire and was not penetrated, just outside of Osan Air Force Base. I have walked that ground and I know what the terrain looked like and what the disposition of forces was.

Task Force Smith lost almost one-third of its soldiers and one-half of its officers in the initial engagement. The 24th Infantry Division as a whole suffered 3,000 casualties in the first 16 days of the war. Our forces never seized the initiative, and the war continued for 3 years.

Forty years later, the same Victory Division—the same 24th Infantry Division—equipped with the best equipment in the world—Abrams tanks, Bradley fighting vehicles, Apache helicopters, and multiple-launch rocket systems—plunged over 130 kilometers into Iraq in 14 hours, crushing enemy forces in its path. By the end of the operations, the Victory Division had sliced its way through over 300 kilometers of Iraqi territory, destroying or capturing hundreds of tanks, armored vehicles, and artillery, and capturing over 3,000 Iraqi soldiers. We never lost the initiative. The war was over in 4 days. The 24th Infantry Division did all this with less than 50 battle casualties.

AVAILABLE OPTIONS

We face a clear choice as we conclude Operation Desert Storm and resume the reshaping of the Army. We can maintain the standards of the Army of Operation Desert Storm—a trained and ready force—or we can condemn our soldiers, our brave young men and women, to the deadly futility of going into battle unprepared, as we did in 1950.

We believe we have made the correct choices, given the limitations in our funding, in our plans for the future by consciously choosing to preserve the quality, the readiness, and the war fighting competence of the Army. With a small Army, we must keep it second to none. In my judgment, quality and readiness are essential, not optional. There is no substitute for quality and there can be no retreat from readiness.

So Mr. Chairman, as you know very well, and as members of this committee know, it has taken over a decade to build the Army that we have today. It has come about through the vision of our predecessors—yours and mine. We must exercise the same far-reaching vision as we reshape the force, recognizing that the Armed Forces we build today will be our legacy for the future.

As the Army Chief my greatest reward has been the opportunity to serve with the magnificent men and women of our Army, 300,000 of whom are currently 8,000 miles from home in the gulf, defending the principles of peace and freedom on which our Nation is based. The all-volunteer total force has clearly been a resounding success, and I am proud to have been a part of it. I want to thank you and all of the members of this committee with whom I have worked for the past 4 years for the support you have given our Army. We need your continued support to ensure that we do not fracture America's victorious Army of Operation Desert Storm.

Thank you, Mr. Chairman.

[The statement follows:]

STATEMENT OF GEN. CARL E. VUONO

Mr. Chairman and members of the committee, it is a privilege for me to appear before the Committee today to report on the state of the United States Army and to explain the Army's plans and priorities for fiscal years 1992 and 1993 and beyond. There is a striking irony in testifying on the Army's future—basically on our blueprint for reducing the Army to its smallest size since before World War II—while the United States has over one-half million men and women deployed on the Arabian Peninsula completing one of the most successful military campaigns in the history of warfare. This situation is unprecedented in our history. It should make us all stop to consider the risks—for there are, indeed, risks associated with the course we are on—inherent in building down the most trained and ready Army in our nation's history during a period of intense international turbulence.

I want to begin my testimony today, much as the Secretary of Defense did several weeks ago, with an important caveat. This budget is based on some extremely positive assumptions about the continuation of the democratic and cooperative trends in the Soviet Union and the outcome of Operation Desert Storm. Should the Soviet Union return to the aggressive and confrontational policies of the past, we should substantially reexamine the military posture we are projecting for the future. Further, we will reevaluate the schedule for building down the force now that Operation Desert Storm has been concluded. With that in mind, this is the first budget of the Army's six-year program, and it represents the continuation of our plan to shape a smaller, capable Total Force for the future.

Our Army today is the best in the world and is an indispensable instrument of national policy. Those standards must be our overarching objective as we shape the Army of tomorrow. We must ensure that our near-term actions do not foreclose essential options that our future national leaders may need to protect our nation's vital interests in the crises of this decade and beyond. We must avoid hasty decisions that will have an adverse impact on our victorious, volunteer forces.

Clearly, no other military in the world could have matched the feats of American Armed Forces in Operation Desert Storm. However, we must keep in mind that the Army of Desert Storm did not materialize overnight. Our forces have been arduously built over the past decades through the vision of our predecessors, yours and mine, in the Congress, in the Administration, and in the Army, with the support of the American people. It is now our turn to exercise the same far-reaching vision, recognizing that the armed forces that we build today will be our enduring legacy to the future.

INTERNATIONAL SECURITY ENVIRONMENT

In the years ahead, the United States will face a security environment that is demanding, diverse, and dangerous. The brutal Iraqi invasion of Kuwait has been a violent reminder of the vulnerability of the global political and economic order, the variety of threats and challenges to U.S. national interests, and the sophisticated warfighting capabilities of many developing countries. Further, while the new Soviet nonconfrontational, and even supportive, policy toward the United States and its allies and the Treaty on Conventional Armed Forces in Europe (CFE) are heartening examples of what the future can hold, the forces that have fostered change and turmoil worldwide continue to produce an environment of almost unprecedented uncertainty. As the Soviet Union and its former allies struggle to shed the burdens of the past, the daunting goal of simultaneously converting from command-directed economies and communist political systems to market economies and democracies is proving unattainable in the short term. The recent Soviet use of military force to suppress dissent in the Baltic Republics may be a harbinger of violent times in the future of the Soviet Union.

To be sure, the positive developments in the Soviet Union and Central Europe have changed both the sources and the form of security challenges to the United States. The near-term threat of a U.S.-Soviet conflict has surely ebbed to a post-World War II low. At the same time, however, we face an ever widening array of challenges outside the confines of Europe. As new centers of economic, military, and political influence are taking shape, the continuing integration of the world economy and the mounting importance of transnational issues command the deep involvement of the United States in the international community.

As Iraq's unprincipled aggression demonstrates the potential impact that powerful regional states can have on the world's economic and political order. It is harsh reality that major threats and challenges are likely to arise from the interstate and internal conflicts that menace important friends and allies or that directly affect U.S. interests. Further, the growing diffusion of power around the world suggests that multilateral security arrangements—such as the Desert Storm coalition—must continue to be developed and nurtured to enhance U.S. security and the prospects for peaceful change worldwide. This will by no means be an easy feat. Indeed, as we craft these cooperative arrangements and define shared costs and obligations, we will be increasingly challenged as developing countries become militarily powerful and their interests and those of our own nation and our coalition partners diverge.

Furthermore, instead of the clear and predominant Soviet-led threat, the United States now faces multiple challenges in the forms of a still potent Soviet capability; continuing regional instability; the proliferation of nuclear, chemical, missile, and other military technology to many developing countries; and aggressive, well-armed regional powers. International drug trafficking, state-sponsored terrorism, insurgency, and subversion of legitimate regimes also continue to pose serious threats to U.S. interests around the world. The post-Cold War era clearly has begun, but with the volatility and unpredictability so characteristic of major transitional periods. We have not yet found the hoped-for and well-deserved respite from four decades of superpower confrontation. In the face of such unpredictable and varied threats, a versatile, deployable, and lethal Army that is trained and ready remains an essential component of the military posture of the United States.

NATIONAL SECURITY STRATEGY

The national security strategy of the United States is evolving to guide the nation's defense capabilities for the changing international environment. This evolution has fundamental implications for the way that we develop and structure Army forces and perform our strategic roles.

The fundamental objectives of U.S. national security strategy are likely to endure. The nation, in conjunction with allies whenever possible, will continue to seek to deter or defeat aggression, ensure U.S. global access and influence, promote regional stability and cooperation, staunch the flow of illicit drugs into the United States, and combat terrorism.

While these objectives will endure, the ways and means to achieve them are changing. We must carefully manage the change so that we can maintain the continuity of capabilities necessary to protect vital U.S. interests now and in the future. The United States must continue to maintain sufficient conventional and nuclear capabilities to counterbalance the substantial Soviet military power that will exist for the foreseeable future. However, the end of the Cold War, and with it the reduction of Soviet adventurism around the world, have permitted a fundamental realignment in the focus of U.S. security strategy. Our national military strategy has shifted away from containment of the Soviet Union and forward defense. Our new strategy calls for achieving U.S. objectives by the projection of power to threatened areas to avert or respond to crises; by forward presence in peacetime relying less on forward-deployed forces; and by the ability to reconstitute a larger, effective defense capability should the need arise. While this strategic concept of reconstitution is not entirely new, its significance will expand substantially as the size of U.S. armed forces decreases. With smaller forces, the United States must rely increasingly on a well-developed capacity to generate (mobilize, train, and equip) the additional forces necessary to confront the Soviet Union and other potential adversaries on a large scale. Maintaining this national capability will involve the discipline and foresight to develop and preserve the mobilization apparatus and infrastructure, the defense industrial base, and the technology base, and to maintain a stockpile of critical materials.

This evolving strategy has fundamental implications for the Army, requiring both the reshaping of Army forces and the adjustment of the Army's strategic roles in support of the new strategy. For example, regional instability, the increasing technological sophistication of armies throughout the world, and the impossibility of maintaining U.S. forces in every potential global trouble spot will place a greater premium on the capability to project power rapidly from the continental United States (CONUS) or from forward-deployed locations. With fewer units based abroad, the United States must be capable not only of rapidly deploying trained and ready forces to crisis locations worldwide, but of massing these forces quickly enough to overwhelm potential opponents and of sustaining these deployed forces in austere environments. Our power projection capability must be indisputable because it is central to the nation's continued ability to deter aggression and to defend vital interests worldwide. This is the essence of the new strategy.

Second, there is a diminishing U.S. requirement to maintain large standing conventional forces abroad ready for immediate use to counter a short-notice Soviet attack. Similarly, the requirement for rapid reinforcement of NATO is reduced. Nevertheless, a prudent and pragmatic recognition of global uncertainties demands that the United States continue to maintain capable and credible forces forward deployed in Europe, Asia, and other areas of vital strategic interest, although at lower levels than in the past.

Third, deteriorating economic situations in developing countries, especially when coupled with the possibilities for international terrorism and narcotrafficking, are demanding an expanded role for military forces in peacetime operations aimed at assisting the threatened countries to enhance their domestic stability and democratic development. Assistance programs, focused primarily on training, will take on increasing importance as forward deployments of U.S. forces and the overall size of the U.S. Armed Forces are reduced.

Fourth, the increasing time that will be available to detect and counter a major Soviet retrenchment or threat of renewed aggression in Europe permits the United States to rely for these eventualities on the capability to reconstitute additional force over a longer period of time. This, in turn, has enabled the Army to reduce the size of our Total Force and to adjust our force generation model—the construct by which the Army plans to maintain forces for commitment over time. The model is based on the ability of our forces to maintain essential levels of warfighting capability in peacetime and on the likely length of time necessary to mobilize, equip, and train these forces prior to their employment. In the future, the Army's contribution to deterring a protracted major conflict will, necessarily, rely on our ability to generate these additional forces when they are required. Moreover, the Army will rely significantly on the Reserve Components for prolonged conflicts, crises, and other unplanned major deployments.

Finally, arms control has become a central means of accomplishing the U.S. national security strategy's goals of stability and deterrence at lower force levels. Assuming that current disagreements are resolved, the ratification and implementation of the CFE Treaty will allow the Army to safely and substantially reduce our European-based forces as Soviet forces are withdrawn from Central Europe. Within the limitations of the CFE Treaty, the United States will preserve the military commitment to the Atlantic Alliance with the continued basing of a two-division corps in Europe, while working with the Allies to enhance the integration of our forces.

ARMY'S STRATEGIC ROLES

The Army fulfills vital strategic roles for the nation, and our trained and ready forces remain crucial to the execution of U.S. national security strategy. As this strategy is changing to cope with the evolving international environment, the Army is adjusting the way we perform our strategic roles to effectively meet the nation's requirement for a force organized, trained, and equipped for prompt and sustained land combat worldwide.

First, the Army maintains combat-ready land forces—armored, light, and special operations—for crisis response and other immediate requirements worldwide. All active component Army forces can be rapidly deployed to regions of potential conflict and assigned to the theater commanders in chief (CINC) in tailored force packages to deter conflict or, if necessary, to fight and win. Operations can range from relatively small actions to protect or evacuate U.S. citizens to much larger regional conflicts, such as Operation Desert Storm. The Army, therefore, plans to tailor our forces to ensure that the appropriate mix of armored, light, and special operations forces is available to meet the myriad situations the nation is likely to face in the years ahead.

The unpredictability of the future international environment will require a contingency force that is prepared for immediate deployment without delays for additional training. Hence, rapid initial deployment capabilities must be provided by primarily

Active Component units. Additionally, because of the increasing proliferation of armored systems in developing countries and the need to quickly mass overwhelming force, the Army must have available in the CONUS-based Active Component force two fully structured armored divisions for contingency missions (rather than only partially structured divisions as we have now). The Active Army will be configured to sustain deployed units for about 30 days without substantial Reserve Component augmentation. Reserve Component units will continue to fulfill their critical responsibilities to provide required individual and unit combat, combat support, and combat service support augmentation.

Second, the Army provides forward presence with units based abroad in areas of vital interest to the United States as well as with units based in CONUS. The Army plans to reduce the number of forward-deployed forces where the situation warrants but to retain sufficient forces overseas to sustain U.S. alliance commitments and to contribute to regional stability. Even in an era of a reduced Soviet threat, the forward presence of Army forces will remain essential to accomplishing our nation's objectives and the Army will enhance its ability to maintain forward presence through periodic deployments of Army units and soldiers. These forces will participate in joint and combined exercises, conduct training of host nation soldiers and units, participate in nation assistance, provide support to counternarcotics efforts, and provide other assistance as required—all to protect mutual security interests.

Third, the Army maintains forces in CONUS able to reinforce forward-deployed and contingency forces. Through reinforcement, the Army ensures that sufficient forces are available to overwhelm any opponent and to fight and win on the battlefields of today and tomorrow. Because of the substantially reduced size of the Active Component, the Army will depend heavily on the timely mobilization of reserve forces for major and prolonged contingencies. We also will continue to refine the capability to reinforce from forward locations, as demonstrated with the deployment of VII Corps from Europe in support of Operation Desert Storm. Our current plans envision generating the majority of our reinforcing forces from CONUS. Our early reinforcing forces will be Active Component divisions rounded out by Reserve Component combat brigades. These units will be capable of early reinforcement of deployed forces or dealing with a second contingency after a period of time for Reserve Component call-up and training. Follow-on reinforcing units will consist of fully structured Reserve Component combat divisions that will be available after a more extended period for mobilization and training. For more protracted requirements, we are studying the utility of cadre divisions—units designed to fill the gap between follow-on reinforcement units and wholly new units that can only be generated after total mobilization. The Army is currently examining concepts for cadre divisions. In general, cadre divisions would be partially manned and equipped in peacetime and be filled and trained in the event of war. Finally, we would raise, equip, and train wholly new forces following total mobilization. Maintaining the mobilization and industrial bases and providing adequate resources for Reserve Component forces will be essential to the viability of U.S. national military strategy.

Fourth, the Army participates in disaster relief, emergency assistance, and interdiction of illicit drugs. The Army continues to provide support to civil authorities, most prominently in the area of counternarcotics. In recognition of the serious threat that illegal drug use poses for the nation, the Army has expanded our role considerably in the effort to reduce narcotics trafficking. The Army also continues to provide disaster relief and emergency assistance when called upon by civil authorities.

Finally, the Army provides support to allied and friendly nations through peacekeeping, security assistance, and army-to-army initiatives. U.S. strategy is coalition-based, relying upon the combined action of U.S. and allied forces. The Army will continue to play an important role in fostering cooperative relations between the United States and other nations. Enhancing stability and democratic political development will become an increasingly important and cost-effective means of combatting instability as U.S. defense budgets decline.

ARMY'S THREE VECTORS

The focus of the Army today is on simultaneously meeting the requirements of three critical tasks that lie along three separate but interrelated vectors.

First, we must provide all the support necessary to accomplish U.S. national objectives in Operation Desert Storm. As we have seen, the Army was central to success, particularly to the eviction of the Iraqi army from Kuwait. Yet our job is by no means done. As in any military operation, the Army's commitment to Operation Desert Storm includes the obligation to prudently redeploy and reconstitute the force now that hostilities have been concluded. Second, we must maintain a trained and ready force to meet ongoing commitments worldwide and for rapid action in unforeseeable contingencies. And, finally, we must continue to shape the Total Force for the future.

OPERATION DESERT STORM

On February 23d, the United States and its coalition partners faced more than 43 Iraqi divisions, thousands of tanks, and half a million Iraqi soldiers in the Kuwaiti Theater of Operation. One hundred hours later, the Iraqi army lay shattered and burning, and organized resistance had ceased. Although more remains to be done, it seems clear that the allied coalition has won an unprecedented victory. We should not forget, however, that this success is the culmination of almost seven months of arduous work and a decade of planning, investment, and training.

The reaction of the United States and its coalition partners to the Iraqi invasion of Kuwait on August 2nd and the eviction of the Iraqi army from Kuwait was spearheaded by trained and ready American land, air and naval forces. Indeed, it is no exaggeration to assert that the President drew his line in the sand with the bayonet of an 82nd Airborne Division paratrooper. The first U.S. soldier was on the ground within 31 hours of the time the initial alert order was given. The remainder of the division and Patriot air defense units followed closely behind, moving by air to secure the ports and arrival airfields that the force would need. The deployment of combat-ready air assault and armored units by air and fast sealift quickly complemented the capabilities of the early deploying and lighter Army and Marine Corps forces. The 24th Infantry Division (Mechanized), from Fort Stewart, Georgia, arrived in theater closely behind the air-landed Army forces and the Marine Corps' Maritime Prepositioning Ships. Armed with over 200 M1 and M60A3 tanks and over 200 Bradley fighting vehicles, the arrival of the 24th Infantry Division in mid-September significantly enhanced the combat power available to the theater commander. This initial force was combat-ready on the ground in about 35 days.

This combat power was further bolstered with the arrival of the 101st Airborne Division (Air Assault) from Fort Campbell, Kentucky, in early October, and the arrival of the 3rd Armored Cavalry Regiment from Fort Bliss, Texas, and the 1st Cavalry Division from Fort Hood, Texas in mid-October. All of these units were placed under the control of the XVIII Airborne Corps. Together they provided the CINC the combat capability—over 700 main battle tanks, over 600 infantry fighting vehicles and almost 150 Apache helicopters—necessary to effectively defend Saudi Arabia in conjunction with our sister services and coalition partners.

As the XVIII Corps and supporting units completed their movement, another Army armored corps—VII Corps—was deployed to the theater to provide the coalition a powerful counter-offensive capability. VII Corps deployed from the U.S. Army Europe with the 2nd Armored Cavalry Regiment, the 1st and 3rd Armored Divisions, and a forward-deployed brigade from the 2nd Armored Division. The 1st Infantry Division (Mechanized) which deployed from Fort Riley, Kansas, was also assigned to it. Although these forces did not begin to move until the end of November, all of the combat elements of these units are currently combat ready in Saudi Arabia. Taken together, the U.S. Armed Forces have projected more combat power over greater distances in less time than ever before and have demonstrated a capability not lost on potential adversaries.

Another significant aspect of the deployment of Army forces in Operation Desert Storm was our in-theater modernization program. This represented the concerted effort by the Army to ensure that our soldiers were equipped with the most capable systems available, a sacred obligation I believe we have to every soldier. Modernization required the movement of a variety of equipment—M1A1 tanks, Bradley fighting vehicles, Heavy Equipment Transporters and the latest logistical support vehicles—from depots and storage facilities worldwide. Based on the results of the ground campaign, this program was well worth the effort.

The major Army systems employed in Operation Desert Storm, developed over the past several decades, served our soldiers extremely well. In one of the harshest combat environments in the world, all major Army land and air systems operated superbly and exceeded Army performance and readiness goals. The Apache helicopter has been used effectively and extensively and has consistently exceeded Army readiness goals. Two batteries of the Army Tactical Missile System (ATACMS) were initially fielded during Operation Desert Storm and have also been effectively employed. The now world-famous Patriot PAC–2 missile (also initially fielded during Operation Desert Storm) has achieved spectacular results. Additionally, the Air Force Joint Surveillance and Target Attack Radar System and the Army Interim Ground Station Modules have combined to provide effective wide-area surveillance and deep targeting support to coalition air and land force commanders. Numerous other systems such as the Abrams Tank, the Bradley Fighting Vehicle, the Multiple Launch Rocket System and the Copperhead 155mm guided projectile have also enjoyed great success. If there was ever any doubt, it should now be clear that our modernization efforts have produced weapon systems that exploit our nation's technological advantages and give our soldiers the lethality they need to win and survive.

The vast deployment of soldiers and equipment to Saudi Arabia and the decisive defeat of the Iraqi army were truly joint efforts that involved the Total Force. In August, the President authorized the call-up of the Selected Reserve to permit the use of Reserve Component combat support and combat service support units and individuals whose unique skills and capabilities were essential for the success of the deployment. In November, this initial authority was expanded to increase the Army's call-up authorization and to provide for the call-up of Reserve Component combat units for 180 days (with the option of renewing this for a second 180 days). On January 18, 1991, the President signed an executive order that increased the Army's call-up authorization to 220,000 soldiers for a period not to exceed 12 months and permitted the Army to call up Individual Ready Reservists in addition to members of the Selected Reserve.

To date, the Army has called up almost 150,000 soldiers and over 1,000 units from virtually every state, the District of Columbia, Puerto Rico, and Guam. Thousands of these soldiers are serving overseas in Saudi Arabia, providing such critical capabilities as water purification and distribution, transportation, port operations, fuel handling, supply and services, maintenance, and medical support. Many others serve in CONUS and overseas, assisting the deployment in such functional areas as port security and terminal operations. In addition, activated reserve soldiers and units are filling critical responsibilities and functions left vacant by active units deployed to Saudi Arabia. This latter category includes medical, legal, military police, and air ambulance units, as well as garrison support units and engineers.

Selected combat units, such as Army National Guard artillery brigades and three round out maneuver brigades of Active Army divisions, also have been called to active duty. These units are now either in Saudi Arabia or undergoing post-mobilization training at Fort Hood, Texas, and Fort Irwin, California. The 142nd Field Artillery Brigade, consisting of 8-inch Howitzer and MLRS battalions from the Arkansas and Oklahoma ARNG, was called up in late November and deployed in late January. The 196th Field Artillery Brigade, consisting of 8-inch and 155mm Howitzer battalions from the Tennessee, Kentucky, and West Virginia ARNG, was called up in early December and deployed in early February. The brigades in Saudi Arabia are performing well, making a substantial contribution to the Army's firepower in the desert.

I have visited each of the round out brigades—the 48th Infantry Brigade, Georgia ARNG; the 155th Armored Brigade, Mississippi ARNG; and the 256th Infantry Brigade, Louisiana ARNG—several times throughout their training. They are working hard to hone their individual and unit combat skills, and I am confident that they will perform well, if and when they are deployed. I should note that the task facing these maneuver brigades—that of effectively integrating the combined arms capabilities of their armored, mechanized infantry, aviation, and artillery units—is one that requires extensive training to master effectively. It is, however, a precondition for victory and survival on today's battlefield.

We also cannot forget the magnificent performance of the logisticians of the Total Force. In the first 80 days, the deployment system moved over 170,000 soldiers and civilians and over 160,000 tons of cargo by air, and over 7,500,000 square feet of cargo and equipment into the area of operations by sea, and another almost 3,000,000 square feet of cargo were enroute. The 1192d Terminal Transfer Unit (USAR), working out of Beaumont, Texas, alone moved 1.3 million square feet of cargo onto 12 ships during the seven weeks it was on active duty—three times the normal work load. Receiving, processing, and distributing this cargo and equipment and these soldiers and civilians, took a herculean effort.

As the deployment of Army units and equipment continued with the movement of the additional units in November, the logistical challenge increased dramatically. The challenges of long supply lines, an austere infrastructure, and the harsh desert environment were met with the professionalism and imaginative logistics strategies you would expect of America's Army. Equipment readiness, supplies and services, support to other services, host nation support, security assistance, transportation, and industrial readiness are all logistical functions that have been critical to the success of the operation.

The success of the ground campaign also rests substantially on the sturdy shoulders of our logisticians. Never before has an eight-division force equivalent moved so far, so fast against a fighting enemy. The bold maneuver that brought about the defeat of the Republican Guard and broke the back of the Iraqi army would not have been possible without the most imaginative and aggressive logistical support in history.

Now that the combat phase of the operation has concluded, it is imperative that we prudently reconstitute the force prior to continuing with its planned reshaping. (Note: The term "reconstitution" in this context applies to returning operationally deployed units to their prehostility levels of capability. It should not be confused with the strategic concept of reconstitution I discussed earlier.) I cannot overemphasize the importance of accomplishing this properly.

Let me give you an idea of the challenges facing the Army in this regard. First, we must take care of our people. We must rapidly, but not hastily, redeploy over 300,000 soldiers from Saudi Arabia and release approximately 150,000 reservists and 20,000 active soldiers involuntarily retained on active duty through the Stop Loss Program. This must be done in a manner befitting soldiers who have served their nation well.

We must return our equipment to pre-war levels of readiness and return it to unit locations and/or POMCUS or war reserve locations. This will be no easy task as we currently have over 7500 combat vehicles and over 1500 aircraft in theater. We must replenish our supplies and war reserve stockages. (I should note here that our plans for the redeployment take into consideration the future end state of the Army for the mid-1990s. For example, we are structuring our plans to avoid shipping equipment to Europe, only to have it returned to the United States as the unit inactivates.) We must also return to the individual, unit and leader development training programs that were so essential to the Army's success in the current operation. We must accomplish all this quickly and efficiently to ensure that we have the smallest possible decrement to the readiness of our forces.

Finally, the fact that Operation Desert Storm occurred as the nation debated its future national security policy and the future size and composition of its Armed Forces has enabled the Army to examine some of the assumptions, policies, and capabilities that underlie our vision for the future. For example, the Total Force, the Ready Reserve Force (RRF), and the Civilian Reserve Air Fleet were all employed in this operation. The lessons of Operation Desert Storm will be extremely useful in refining our plans, programs, and policies for the future. As these lessons are reviewed, however, we cannot allow ourselves to become transfixed by the "last war." The Army requires capabilities that enable it to operate from peacetime engagement to general war. Especially in this era of declining defense resources, lessons learned must be applied toward improving the versatility, deployability, lethality, and expansibility of the Total Army and not restricted to "quick fixes" for shortcomings identified in the current operation.

I know that you are extremely proud of the efforts and performance of the men and women of America's Armed Forces in Operation Desert Storm. Members of this Committee have played a significant role over the past decade in creating the quality force that is the overarching reason for our success. You can be justifiably proud of your roles in providing the basis for the most rapid and massive projection of combat power and one of the most successful combat operations in history.

SUSTAINED READINESS

Even as we focus on completing Operation Desert Storm, we must sustain readiness throughout the force, worldwide. In the turbulent post-Cold War era we can't declare a "time out" to reconstitute.

Within the last 14 months, Army forces have been committed to major combat operations twice. Both operations required rapid, short-notice projection of combat power from the United States, and, in the latter case, from forward-deployed forces in Europe. Operations Just Cause and Desert Storm have unequivocally demonstrated the need to maintain a trained and ready Army throughout this period of great uncertainty.

In December 1989, the Army rapidly deployed light and special operations units to Panama where, in conjunction with armored units and the forces of the other services, they went directly into combat in less than 60 hours from the time they were alerted—in the middle of the night 2000–3000 miles away from their home bases. In response to the Iraqi invasion of Kuwait, as I have just discussed, the Army rapidly deployed forces over 8000 miles from the United States to Saudi Arabia in as little as 31 hours from their initial alert notification. Our European-based forces were also deployed on short notice. In fact, one Patriot air defense missile section deployed from Europe to Israel and was operational in 19½ hours from the time the Joint Alert Order was issued.

The circumstances that required the deployment of American forces in Operations Just Cause and Desert Storm are clearly not aberrations. They are an unfortunate by-product of the transition to the post-Cold War era. While we may no longer give credence to the old Mao Tse-tung axiom that "Power flows from the barrel of a gun," it is obviously still an operative rule elsewhere in the world.

In such an environment, the Army must remain prepared to advance and defend U.S. national interests worldwide. Army forces must be kept trained and ready for conflicts, crises, contingencies, and peacetime support requirements that may develop in other parts of the world. With over seven divisions employed in Operation Desert Storm, the Army is stretched to meet the needs of a global superpower. Nevertheless, we have maintained the capabilities of our forward-deployed forces in Europe and the Pacific, and of the remainder of the CONUS-base to perform normal peacetime engagement missions, to render support to civil authorities when necessary, and to provide combat ready forces elsewhere should the circumstances warrant. As we have seen with the deployment of VII Corps from Europe, all of our forward-deployed forces must maintain the capability to deploy to crisis areas worldwide on short notice.

With the value of maintaining trained and ready forces so fresh in our minds, I sincerely hope that we have learned our lessons from past post-war demobilizations. Our history is replete with examples of debilitating draw downs following major conflicts leading to poor performance by our military in the initial stages of the next crisis. We must not allow our trained and ready forces to be ravaged by the turbulence that will result from an unnecessarily hasty draw down following Operation Desert Storm. The stakes are too high.

SHAPING A SMALLER TOTAL FORCE

While supporting Operation Desert Storm and sustaining our readiness worldwide, we also must continue our plans to reshape the Army for the future. We remain committed to a comprehensive plan for shaping the Army into a smaller, capable Total Force and to our vision for the future—an Army trained and ready to defend vital U.S. interests wherever they might be threatened.

Our original plan, as outlined in my testimony last year, has proven remarkably resilient. You will remember that we began to develop our vision for the future Army in 1988 to provide the framework within which the Army could efficiently adapt to change in the international security and domestic fiscal environments while minimizing risks. We based this plan on careful assessments of the future capabilities the Army would require to fulfill our strategic roles in support of the national military strategy, the threats the nation was likely to face through the end of the decade, and the lessons learned from demobilizations following previous twentieth century conflicts.

The essence of our plan was to significantly reduce the size of the Army and to limit our near-term modernization to only what was unquestionably essential in order to maintain the quality, readiness, and warfighting capabilities of the Total Army both during the transition to a smaller force and in the future. The plan was based on the uncompromising adherence to our six fundamental imperatives that guide the Army today and serve as a beacon for the future—maintain a quality force; maintain solid warfighting doctrine; maintain the appropriate mix of armored, light, and special operations forces required by national strategy; conduct tough, realistic training; continue modernization to improve warfighting capabilities; and develop competent, confident leaders. It was also based on maintaining a controlled and rational builddown process that would minimize the turbulence so detrimental to readiness and enable us to limit the impacts of involuntary release on our soldiers, civilians, and their families.

Further, it was based on the belief that all near-term actions to reshape the force had to be taken with our focus clearly fixed on the future. The victorious Army that executed Operation Desert Storm is the result of past policy decisions, investments, and an abiding commitment to fielding trained and ready forces. Our quality, volunteer soldiers are manning weapon systems developed, in some cases, over the past two decades. They are being led by leaders whose skills have been honed by training and leader development programs that last throughout an entire career. These leaders have remained in the Army not only because of their commitment to the nation, but also because of the challenging career opportunities and the quality of life that the nation has provided them. It has taken more than a decade to build the Army that we have today. We cannot expect to quickly rebuild the best Army in the world if we squander its quality, readiness, and future potential through precipitous reductions in force structure and personnel. In making near-term decisions then, we must ensure that we continue to build for the uncertain and unpredictable future.

Finally, we concluded that the evolving international environment would require an Army with three fundamental qualities: tomorrow's Army must be versatile, deployable, and lethal. These characteristics, along with the requirement to expand the force as a hedge against the uncertain future, continue to form the basis of our efforts to reshape the Army.

A VERSATILE ARMY

In view of the rapidly changing international environment, the precise time, location, and nature of threats to U.S. vital interests will always be uncertain. The Army must be able to counter a wide array of potential and unpredictable threats with a relatively small force. Therefore, a highly capable, versatile Army able to meet U.S. strategic requirements for worldwide power projection and forward presence is the most effective solution to our nation's requirements for land forces. The ability to tailor force packages for specific missions and to project the necessary elements of these forces without delays for retraining or mobilization will be essential. Versatility will require the right proportions of Active and Reserve Components, the correct mix of forces (armored, light, and special operations), adequate sustainment stocks, and, above all, the ability to recruit and retain quality soldiers and leaders that are the foundation of our quality force.

Versatility also demands intensive training and frequent exercises. For the Army of the future, training programs and worldwide deployment exercises must provide leaders and soldiers the opportunity to tailor force elements, to deploy within anticipated contingency warning times, and to sustain forces in austere environments. Therefore, as I discussed, the Army plans to reconfigure the active forces designed for crisis response and other immediate requirements worldwide. These plans envision a contingency force that can call on two fully structured Active Component armored divisions, airborne, air assault, and light divisions, and special operations forces, as well as expanded Active Component combat support and combat service support. This configuration will enhance the Army's versatility by increasing our ability to rapidly tailor lethal force packages on short notice to meet force projection requirements worldwide.

Versatility also will be essential in enabling the Army to meet other challenges. Adaptive and responsive Army civilians, soldiers, units, and leaders will be crucial as the Army continues to support national efforts to combat drug trafficking and terrorist organizations, to assist civil authorities in disaster relief and during other unforeseen emergencies, and to carry out security assistance efforts.

As the Army gets smaller, the quality of our people—soldiers and civilians—will determine the versatility of the Army more than any other characteristic. With a volunteer force, the Army must continue to provide incentives to attract and retain the highest caliber men and women. This means that the Army will have to provide not only adequate compensation but also living and working environments equal to those of the society our soldiers are sworn to defend. Furnishing such a quality of life for our soldiers and their families is a prerequisite for maintaining a quality force.

A DEPLOYABLE ARMY

The nature of U.S. interests around the world, our coalition-based strategy, the uncertainties of the international environment, and the planned reduction in our forward-deployed forces all require that U.S. forces be globally deployable, often with little or no warning, from the United States or from forward bases. Recent events in Panama and Kuwait make it abundantly clear that what I stated last year is even more true now: "Rapid deployment will become even more important in the future."

The United States also will have to maintain the ability to conduct an opposed entry into combat in defense of vital U.S. interests anywhere. In many contingencies, a forcible entry will only be possible, or will best be achieved, by simultaneous airborne assaults on a number of objectives, as we saw in Panama. Army airborne and Ranger forces are uniquely capable of performing this function. They will remain a key element in the Army of the future.

As we have demonstrated in Operation Desert Storm, Army forces today are trained and ready to deploy rapidly to meet requirements for armored, light, and special operations forces. Yet even the most deployable and combat-ready land force cannot be employed without adequate airlift, sealift, and pre-positioned stocks. The United States cannot afford to risk the effectiveness and credibility of its overall defense strategy by failing to develop and field adequate worldwide lift assets. Airlift and sealift currently available were severely taxed in the early phases of Operation Desert Storm. We had to rely to a significant degree on foreign vessels. U.S. worldwide lift capabilities must be reviewed in the immediate years ahead. A smaller, predominantly CONUS-based Army will be even more reliant on airlift and sealift for rapid movement to trouble spots in sufficient strength and with adequate sustainment to deter threats or to quickly terminate conflicts. The Army continues to believe that the early fielding of an adequate number of C–17 aircraft is a matter of the highest national priority. Moreover, the United States should develop and maintain sufficient fast sealift capacity to support contingency power projection of at least two armored divisions simultaneously, anywhere in the world in about 30 days.

Not only must the United States expand worldwide lift, it must also move ahead with other initiatives that enhance our ability to act in crises and other immediate circumstances through the deployment of powerful conventional forces. We must design our forces so that they can be put together in packages that are tailored for rapid movement. We must examine military access agreements that allow us to project forces during pre-crisis situations. We must design our equipment stressing mobility while not sacrificing combat power, and we must look at ways to preposition supplies and equipment to enhance the infrastructure in regions where we see the greatest risk. The lessons of Operation Desert Storm underscore this point; the ability to project significant combat power was greatly facilitated by a decade of work done to develop the infrastructure in Saudi Arabia.

A LETHAL ARMY

Lethality is the assured capability to defeat an opponent, winning as quickly as possible to preserve the lives of our soldiers and to limit collateral damage and noncombatant casualties. Assuring the lethality of Army forces against increasingly modernized opponents demands a disciplined, continuous modernization effort. This means maintaining the capability to swiftly counter the armored forces of potential adversaries after deploying to austere environments while at the same time fielding forces that can defeat less sophisticated threats around the world. There should be no question as to the value of maintaining modernized, lethal forces.

Concepts and doctrine will continue to guide the Army's efforts to develop and field combat-ready forces. For the near term, AirLand Battle doctrine provides this foundation. Projecting ahead, the Army has launched the evolutionary AirLand Battle-Future concept that is designed to update all our warfighting doctrine for the early twenty-first century. The Army also will continue to participate in the development of joint and combined doctrine.

Based on this doctrine, Army modernization will continue to capitalize on U.S. advantages and strengths—particularly the qualities of our soldiers, leaders, and technology—and exploit vulnerabilities and weaknesses in potential adversaries. As future budgets will be constrained, the Army will assign appropriate priorities and levels of effort to all aspects of modernization in order to field a force for the future that can win and survive against any potential adversary. We believe that we can make the best use of our resources by investing in our technology base in order to identify promising new technologies while avoiding mortgaging our future for useful but noncritical near-term capabilities. To be sure, we will continue to field systems to overcome critical near-term deficiencies. The Air Defense Antitank System (ADATS) and our anti-armor modernization programs are examples of systems designed to fill current critical battlefield capability voids. For the most part, however, the Army will forgo near-term modernization while continuing with essential long-term modernization efforts. The Light Helicopter, Armored Systems Modernization, and our intelligence and early warning programs are examples of our investment in the future. In sum, high-technology research and development is, and will remain, a central feature of the Army's modernization strategy.

The lethality of the Army of the future will be determined, above all else, by the actual combat readiness of the force. Training will continue to be the cornerstone of Army readiness. Combat Training Centers will remain the key to developing the maximum lethality of Army units. These centers not only hone combat skills, they also enable us to apply lessons learned, such as those being derived from Operation Desert Storm; to assess the validity of the Army's combat doctrine; and to develop officer and noncommissioned officer leaders. Indeed, the Army in the desert today is the product of some of the most rigorous peacetime training ever conducted. The Army will continue to provide tough, realistic training to the highest standards so that soldiers, units, and leaders have the best possible chance of quickly accomplishing their missions and surviving should they be committed to combat.

Quality Army soldiers, structured in an appropriate mix of armored, light, and special operations forces; trained to a razors edge; equipped with modern systems; guided by a solid warfighting doctrine; and led by competent and confident leaders will provide the nation the lethal forces that it requires on the battlefields of today and tomorrow.

AN EXPANSIBLE ARMY

A smaller Army must also be expansible—able to grow quickly as a hedge against future uncertainties. The dynamics of the international situation are such that current plans to reduce the size of the Army are not without substantial risk. Some of this risk will be reduced by maintaining quality and readiness in the Total Force and some by retaining the capability to rapidly expand the force. The force generation model that I discussed earlier is the cornerstone of an expansible Army. It is the means by which the Army structures the force to meet the requirements of the national military strategy.

As we have seen in Operation Desert Storm, smaller U.S. land forces may often be outnumbered by the land forces of their opponents. Given the planned size of the future Army and the unpredictability of the international environment, the United States must maintain the capability to regenerate forces to sustain and reinforce extended contingency operations, to hedge against a second simultaneous contingency, or to confront a resurgent Soviet Union or other unexpected large-scale threats to U.S. security. The Army will therefore continue to rely extensively on the Reserve Components for combat support and combat service support augmentation and to provide reinforcing combat forces. Their timely activation for crises beyond small-scale contingencies will be essential to the successful attainment of U.S. objectives.

The ability to successfully expand Army forces rests on detailed mobilization planning, realistic call-up authority and planning assumptions, periodic testing of the mobilization apparatus, and the foresight and discipline to adequately resource programs and units required on mobilization. The Army must retain the capability to expand the force both during its transition to a smaller force and in the future.

THE ARMY OF 1997

At this time last year, we planned to reduce the size of the Army from a five-corps, 28-division force to a four-corps, 23-division force by the mid-1990s. The accelerated collapse of the Warsaw Pact and the requirement to meet the targets of last year's budget agreement necessitated further reductions. Our current plans envision a four-corps, 20-division Army by the mid-1990s. We strongly believe that this is the irreducible minimum force required for the Army to meet the nation's future needs for a sustained land combat capability. It is the force that we must have, as the Chairman of the Joint Chiefs of Staff mentioned in his recent testimony before the Committee, to deal with the emerging and enduring realities that our nation faces in the future.

The future Army will be largely CONUS-based. Forward presence will be maintained by forward-deployments at levels sufficient to maintain credible deterrence and to demonstrate unambiguous commitment and resolve to allies, friends, and adversaries worldwide. It will be supplemented by the periodic deployments of forces from the United States or from forward locations. The Army in CONUS will consist of a contingency force that is rapidly tailorable for crisis response and other immediate force projection requirements worldwide, an early reinforcing force of active divisions rounded out by Army National Guard brigades, a follow-on reinforcing force of Army National Guard divisions, cadre divisions, and the requisite general support forces. When reductions to these levels are completed, the nation will be at the limits of acceptable risk with regard to its land forces, even with the continued nonconfrontational posture of the Soviet Union.

The Army's budget for fiscal years 1992 and 1993 represents the continuation of the Army's efforts to reshape the force. As submitted, it is based on the Army's attaining designated fiscal year 1991 end strength reductions by the end of the fiscal year. It seems clear, however, that these plans must be adjusted after U.S. and coalition objectives in Operation Desert Storm have been achieved. While the outcome of Operation Desert Storm is not in question, its duration and impact on the Army are. Hence, while the Army remains committed to the prudent continuation of our plans for reshaping the force, we will complete the refinement of our plans for the future now that the combat phase of Operation Desert Storm has concluded.

CONCLUDING STATEMENT

Mr. Chairman, in closing I want to thank the members of the Committee whom I have worked with over the past four years for their support. It has been an honor and a privilege to serve with you in shaping an Army of which we can be justifiably proud.

At the same time, it has not been easy beginning the build down of the finest peacetime Army in the history of the nation. Yet I could do this with absolute conviction because I firmly believe that the United States will never be properly served by a large, poorly trained, undermanned, and ill-equipped Army. We have made a very conscious choice to reduce the size of the Army in order to preserve the quality, the readiness, and the warfighting capabilities of the force for the present and the future. In my judgment, quality and readiness are essential—not optional. I cannot overstate the importance of this. As I said last year: "There is no substitute for quality, and there can be no retreat from readiness."

We have, however, reached the lowest limits possible in size. The Army of the mid-1990s will be a perilously small land force for a nation with the United States' superpower responsibilities. As we continue to shape the force for the future, we must keep this in mind. It will then be essential to minimize the risks inherent in a smaller force by limiting the turbulence created by rapid force reductions and by maintaining the quality and readiness of the force. The Army's plans for the future have been structured to accomplish this.

I cannot overemphasize the need for a prudent and managed reconstitution of the Army at the conclusion of Operation Desert Storm and the gradual resumption of our planned force reductions. It is essential that we address the realities of near-term fiscal requirements with a view toward the future. The decisions you will make concerning the reconstitution and this budget will shape the direction of the Army in the decade of the 1990s and beyond. I fervently hope that our successors are not faced with the need to confront a future "Saddam Hussein." But, more than that, I hope that if we do, both the Army and the nation are prepared.

Finally, as Army Chief of Staff, my greatest reward has been the opportunity to serve with the magnificent young men and women of America's Army, almost 300,000 of whom are now serving in the Persian Gulf. The all-volunteer Total Force has clearly been a resounding success, and I am proud to have been a part of it. While I am enormously gratified at the performance of our Army on Operation Desert Storm and the small number of casualties that have resulted, I mourn the sacrifice of the brave men and women who have given their lives for our country. Mr. Chairman, thank you and the Committee for your time and for your support of the Army. I will be pleased to take your questions.

Maintaining a Trained and Ready Total Force for the 1990s and Beyond

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A Statement on The Posture of The United States Army Fiscal Years 1992 and 1993

by

The Honorable Michael P.W. Stone
and
General Carl E. Vuono

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Presented to
the Committees and Subcommittees
of the
UNITED STATES SENATE
and the
HOUSE OF REPRESENTATIVES
First Session, 102d Congress

Carl E. Vuono
General, U.S. Army
Chief of Staff

M. P. W. Stone
Secretary of the Army

Foreword

At this time last year, Army forces, as well as those of our sister services, had just completed the liberation of Panama from a brutal dictator. Today, over 275,000 Army soldiers are deployed in Saudi Arabia, spearheading an international coalition to liberate Kuwait. The world "in the throes of fundamental and unprecedented change" that we spoke of in the Army's January 1990 white paper, "A Strategic Force for the 1990s and Beyond," is clearly upon us.

The Army is now engaged in accomplishing national and United Nation's objectives in Operation Desert Storm. While this is clearly our most important current objective, the United States has vital interests in other regions of the world that may be challenged during this turbulent post-Cold War period. Moreover, we have a responsibility to take steps today to prepare the Army for the future. Therefore, even as the Army and other coalition ground forces stand ready to evict the Iraqi army from Kuwait, we must sustain the readiness of Army forces worldwide to meet ongoing commitments and to act rapidly in unforeseeable contingencies, and we must continue to execute our plans to shape the Total Force for the remainder of the 1990s and beyond.

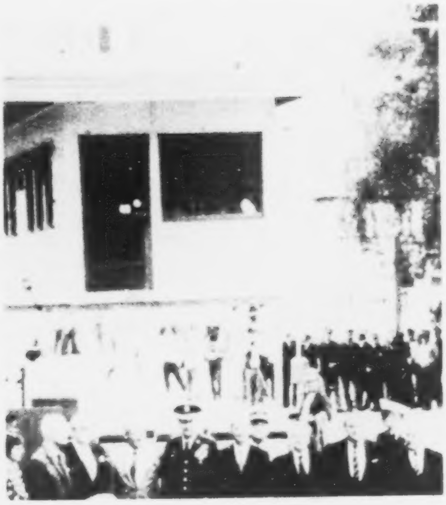
Although we have temporarily delayed some near-term actions in our plan to reshape the Army and have activated a substantial number of reserve units and soldiers in order to support Operation Desert Storm, we will resume the build-down we began last year as soon as prudent. However, it is vital that we resume our build-down in a measured manner so that we can properly care for the Army soldiers, civilians, and family members who have served their country so well in this current emergency and so that we can preserve the quality and the readiness of the Total Force.

The employment of Army forces over the past year has unambiguously validated the six fundamental imperatives, which will continue to guide our resource decisions as we reshape the force. They also have reinforced the need for a versatile, deployable, lethal, and expansible Army for the future. This Posture Statement details the Army's plans to maintain the essential quality and readiness of the Army as we reshape the Total Force in an era of precipitously declining resources and international change.

Today's Army is trained and ready as never before in our 200-year history -- an accomplishment that took a decade to evolve and that would not have been possible without the support of Congress and the American people. America's Army is well prepared for the challenges we face in the tumultuous decade ahead.

15 February 1991

I. The Evolving National Security Environment



The evolving national security environment:
A symbol of the East-West divide is removed in Berlin.

Soldiers deployed for Operation Desert Storm.

Challenges, Risks, and Opportunities

> In the years ahead, the United States will face unprecedented challenges, risks, and opportunities in a volatile and unpredictable world. . . . The challenge for the Army in this era of change will be to prepare for the future without losing sight of both the present opportunities and the inherent, yet uncertain risks of evolving security challenges around the world.

As the attention of the world is focused on the greatest foreign commitment of U.S. combat power since the Vietnam War -- Operation Desert Storm -- and the efforts of coalition forces to liberate Kuwait, those words from last year's Army Posture Statement take on even greater significance. In 1990 many aspects of the evolving international environment were hopeful, particularly the rapid unification of Germany, the accelerating relinquishment of Soviet control over the Warsaw Pact, and the less threatening tone of Soviet foreign policy. Mindful of the pressing need to reduce the burgeoning federal deficit, the United States focused more on the opportunities presented by reduced superpower confrontation than on the challenges and risks inherent in the evolving international environment.

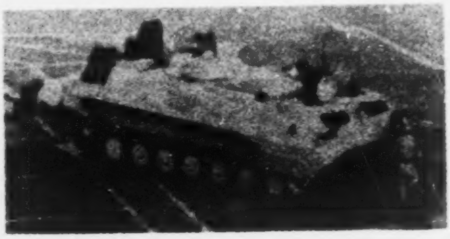
The brutal Iraqi invasion of Kuwait has been a reminder of the vulnerability of the global political and economic order, the variety of threats to U.S. national interests, and the technological sophistication possible in the warfighting capabilities of developing countries. Further, while the new Soviet nonconfrontational, and even supportive, policy toward the United States and its allies and the Treaty on Conventional Armed Forces in Europe (CFE) are heartening examples of what the future can hold, the political, economic, and social forces that have fostered change and turmoil worldwide continue to produce unforeseeable results. As the Soviet Union and its former allies struggle to shed the burdens of the past, the daunting goal of simultaneously converting from command-directed economies and Communist political systems to market economies and democracies is proving unattainable in the short term. The recent Soviet use of military force to suppress dissent in the Baltic Republics may be a harbinger of things to come. International drug trafficking, state-sponsored terrorism, insurgency, and subversion of legitimate regimes also continue to pose serious threats to U.S. interests around the world. The post-Cold War era clearly has begun, but with the volatility and unpredictability so characteristic of major transitional periods, not with the hoped-for and well-deserved respite after four decades of superpower confrontation.

The Three Vectors

The focus of the Army today is on simultaneously meeting the requirements of three critical tasks, or vectors. Quite obviously, *we need to provide all the support necessary to accomplish U.S. national objectives in Operation Desert Storm.* The Army is central to success, particularly to the eviction of the Iraqi army from Kuwait. Accordingly, Army forces will continue to be trained, organized, equipped, and sustained to meet Operation Desert Storm's requirements. As in any military operation, the Army's commitment to Operation Desert Storm includes the obligation to prudently reconstitute the force once the mission is accomplished. The extent of this reconstitution will depend substantially on the duration and lethality of the war. (The term *reconstitution* in this context applies to returning operationally deployed units to their pre-hostility levels of capability. It should not be confused with the strategic concept of reconstitution discussed later in this chapter.) Even without combat losses, we must return over one-quarter million soldiers, their equipment, and their supplies to home stations in an orderly fashion. This includes the return of units to Europe. The Army must then rapidly, but not hastily, release over 150,000 reservists and over 20,000 soldiers involuntarily retained on active duty by the Stop Loss Program with the dignity befitting volunteers who have served their country well. Finally, equipment must be refurbished and supplies replenished. Funds to accomplish this reconstitution have not been included in the FY92/93 budget.

Yet even as the Army supports this complex and vital mission, our challenge is to focus simultaneously on two other major vectors -- *we must maintain a trained and ready force to meet ongoing commitments worldwide and for rapid action in unforeseeable contingencies, and we must continue to shape the Total Force for the future.*

The Army must remain prepared to defend U.S. national interests worldwide. Uncommitted Army forces must be kept trained and ready for conflicts, crises, and contingencies that may develop in other parts of the world and for reinforcement, as required, of Army forces in Saudi Arabia. There will be few units in the Army untouched by Operation Desert Storm. Nevertheless, the Army must maintain the capabilities to forward station forces in Europe and the Pacific and to act elsewhere should the circumstances warrant.



An Iraqi armored personnel carrier in Kuwait after the invasion. © *Reuters*

While supporting Operation Desert Storm and sustaining our readiness worldwide, we also must continue to reshape the Army in light of the changing international environment and the diminished resources available for national defense. The Army remains committed to a comprehensive plan for reshaping the Total Force. The essence of this plan is to reduce significantly the size of the Army and to limit our near-term modernization in order to shape the smaller, but versatile, deployable, and lethal Army needed for the future. While the outcome of Operation Desert Storm is certain, its duration and impact on the Army are not. Thus, we have temporarily delayed action on elements of this plan until the accomplishment of U.S objectives in Operation Desert Storm. We do, however, continue to plan for the future. The Army must ensure that near-term actions to support Operation Desert Storm and to meet pressing budgetary shortfalls do not place essential long-term Army capabilities in jeopardy. It should be remembered that the success of the deployment and the current operation are the result of a decade of investment, planning, training, and other efforts. The Army has structured programs and budgets so as not to mortgage capabilities needed for the Nation's future security to near-term fiscal pressures. Our challenge over the next year will be to minimize the risks to the Nation as we pursue these three, often competing, vectors throughout this turbulent transitional period.

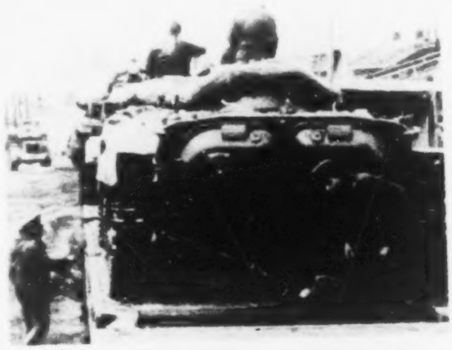
International Security Environment

The United States faces a complex and varied security environment. The turmoil within the Soviet Union and the emergence of militarily and economically powerful regional actors have left the United States as the only multidimensional superpower. In a world in which economic, social, and political issues are becoming increasingly global, such developments have changed the focus of the threat to the United States and, to some extent, its form. Instead of the clear and predominant Soviet-led threat, the United States now faces multiple challenges in the forms of a still-potent Soviet capability; continuing regional instability; the proliferation of nuclear, chemical, and missile technology among many developing nations; and aggressive, well-armed regional powers.

New centers of economic, military, and political influence also are taking shape. The rising integration of the world's economies continues. The influence of economics on international affairs is pervasive. Although some of these trends are welcome, events in Iraq demonstrate the rapidity with which a regional conflict can involve worldwide military and economic power. Further, the growing diffusion of power suggests that multilateral actions, including shared costs and obligations, must continue to be developed, nurtured, and implemented to enhance U.S. security and the prospects for peaceful change worldwide. Crafting these cooperative arrangements, however, will be increasingly challenging as developing countries become militarily powerful and national interests diverge.

Transition in the Post-Communist Countries

The European security environment has changed considerably over the past year. The Soviet military presence in Central Europe is expected to continue to decline greatly in the next few years. President Gorbachev has emphasized internal restructuring and the lessening of the military burden on a faltering economy. Simultaneously, the Soviet Union has adopted a less confrontational attitude toward the United States. There are indications that the deepening Soviet economic crisis will put increasing pressure on Soviet defense budgets. Furthermore, Soviet military readiness and effectiveness increasingly are open to question as a result of competing domestic resource pressures and widespread civil unrest. Finally, the Soviet Union has announced a new defense posture, which, when implemented, could make its residual force structure less threatening to its neighbors. These positive developments are to be encouraged.



The Soviets are removing their forces from Eastern Europe. Above, Soviet troops withdraw from Czechoslovakia.

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On the other hand, the use of force to impose central control over increasingly restive nationalities and deteriorating economic conditions is cause for serious concern. Such use of force should be closely monitored and vigorously discouraged. Perhaps the most alarming prospect is that the Soviet Union may disintegrate in violent civil war. Conflict within the Soviet Union would have serious spill-over effects that would endanger security throughout Europe and elsewhere along Soviet borders. The threat of disintegration could lead to the emergence of revanchist groups seeking to reassert central power and Soviet regional influence. The occurrence of such events represents a distinct possibility that could pose a significant threat to U.S. security interests.

Elsewhere in Europe, the Warsaw Pact no longer functions as a military alliance. Hungary already has declared its intent to leave the Pact, and other members may follow over the next few years as the divisions between East and West continue to diminish and the new non-Communist governments of Central Europe maintain their democratic evolution.

While Cold War antagonisms recede, traditional rivalries have re-emerged, posing a renewed threat to European security. Yugoslavia appears on the verge of disintegration, threatening to rekindle historic Balkan unrest, and ethnic rivalries have exacerbated already strained relations between Hungary and Romania as well as between Turkey and Bulgaria. One significant element of the post-Cold War challenge to Europe will be to resolve the resurgent animosities that historically have led to regional and even global conflict.

The unilateral Soviet troop withdrawal from Central Europe, announced by President Gorbachev in December 1988, is over half completed. In March 1990, the Soviet Union signed agreements with both Hungary and Czechoslovakia to withdraw all Soviet troops from those countries by July 1991. This withdrawal is well under way. Poland is attempting to negotiate a Soviet withdrawal. Unification of Germany was completed in October 1990, and the Soviets have agreed to withdraw all their troops stationed there by 1994; it is possible that the Soviets may be pressed to withdraw their troops even earlier. These adjustments parallel restructuring on the Soviet Union's southern and eastern borders, somewhat assuaging Chinese and Japanese concerns about the Soviet military presence in Asia. The CFE Treaty has been signed, codifying Soviet reductions in the Atlantic-to-the-Urals (ATTU) area. However, as this statement is being prepared, there is controversy about some Soviet actions involving treaty provisions, and the Treaty still remains to be ratified by the participating governments. Strategic Arms Reductions Talks (START) between the United States and the Soviet Union may lead to a reduction of strategic nuclear weapons.

The result of these continuing changes is that the military threat to NATO, especially if the CFE and START treaties are ratified and implemented, will be significantly reduced. Nevertheless, there are still some issues that the Army cannot ignore. U.S. military posture must be designed to meet potential adversaries' long-term capabilities, not their current stated intentions. Despite President Gorbachev's unilateral cuts, the Soviets are not destroying much of the modern equipment that they are withdrawing from the ATTU as part of their unilateral withdrawal. For the most part, the Soviets are redeploying this equipment in the interior of the USSR. At the same time, the Soviets are continuing an active, though somewhat reduced, modernization program to upgrade their conventional forces. Older equipment withdrawn from Europe is either reallocated or destroyed, but residual units are being provided with more modern equipment. Even with a military reduced by unilateral reductions and arms control treaties, Moscow will still possess the largest standing army in Europe, consisting of 50 to 60 maneuver divisions within the ATTU zone. The Soviet Union also continues to modernize its strategic nuclear arsenal, thus remaining the only country able to threaten the existence of the United States.

While there may be some slowing in the pace of their modernization, we expect the Soviets to continue their focus on modernizing both conventional and nuclear forces, pursuing vigorous technological research, and exploiting space to support military operations. Additionally, the sale of sophisticated Soviet combat systems to other countries means that the United States and its partners will confront those systems in other regions.

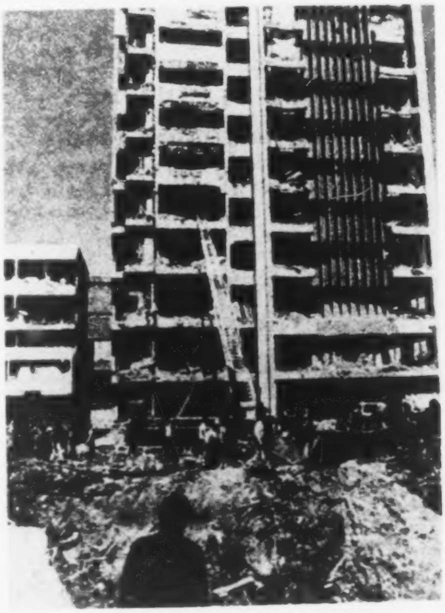
While the positive changes and the beginning of democratization in the Soviet Union and Central Europe should be applauded, the ultimate outcome of President Gorbachev's program and the future course of the Soviet Union remain in doubt, particularly regarding the reform of the Soviet military. The Army must remain prepared to adjust to this uncertainty and to deal with the Soviet military's long-term capabilities.

Developing Countries

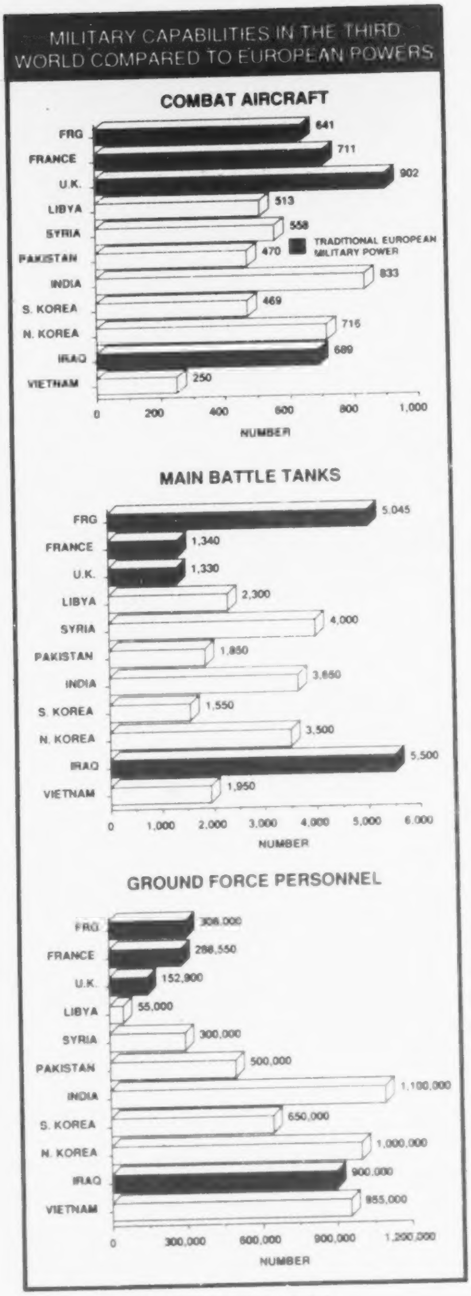
Instability in other parts of the world also has the potential to nurture threats to U.S. interests. Particularly in the developing countries, advances toward democracy and economic prosperity are generally tentative and often not widely distributed. The challenges for these developing countries also are increasingly complex. Radical nationalism and religious and ethnic chauvinism continuously generate friction. Economic and political systems are often unable to meet popular demands for improved standards of living and basic political rights. Adverse climatic conditions, population growth, unstable commodity prices, and disease further damage the economic prospects of many developing nations. The situation often leads to the erosion of national unity, political unrest, and violence.

Radical leaders can exploit legitimate grievances and adverse political and economic conditions to foment insurgencies that threaten existing governments, create instability, and retard the development of democratic institutions. Some government leaders, on the other hand, have looked for solutions to internal problems by resorting to authoritarian rule or by shifting the focus of popular passions outside the country, leading to heightened interstate frictions. Frictions between states also are generated by groups opposed to current regimes seeking assistance from external sources. This assistance is often manifested as state-sponsored terrorism. This grim combination of trends portends increased violence and instability around the world as developing countries struggle to surmount these difficulties and pursue human rights and economic well-being.

Even as the economic base and, often, the social fabric of some developing countries continue to deteriorate, the military capabilities of many of those same countries grow. Many states have acquired sophisticated weapon



Violence is an all-too-common occurrence in many developin countries. Above, a bomb-damaged building in Colombi
© Semana



SOURCE: INTERNATIONAL INSTITUTE FOR STRATEGIC STUDIES, THE MILITARY BALANCE, 1990-91

systems and the ability to produce and sustain them. More than a dozen developing nations have 1,000 or more main battle tanks. The growth in armor is paralleled by commensurate growth in ancillary combat and combat support capabilities. Aircraft, missiles, and precision-guided munitions are commonplace. Likewise, the indigenous ability of developing nations to field, support, and use such systems is improving rapidly. The Army is particularly concerned about the concerted efforts several countries are making to acquire chemical, biological, and nuclear warfare capabilities. The Iran-Iraq War, in which by some estimates there were one million casualties, and the current conflict with Iraq are sobering examples of how destructive modern warfare has become. Both wars have seen the use of surface-to-surface missiles against nonmilitary targets, and chemical warfare was employed in the Iran-Iraq War (though not, to date, in Operation Desert Storm).

The proliferation of advanced weapons technologies presents increasing risks to U.S. forces deployed around the world. To cope with this threat, the United States must balance the need to protect strategic technologies with economic requirements and the need to support cooperative defense programs. Army technology security procedures are being improved and focused more closely on protecting the U.S. lead in important land-system technologies while still pursuing appropriate security assistance and cooperative research, development, and procurement programs with the armed forces of U.S. friends and allies. The Technology Assessment and Control Program is one such effort designed to enhance these procedures.

Other less intense, but no less deadly, forms of conflict are ongoing in several regions. Instances of indiscriminate attacks on civilians and the exploitation of starvation and group antagonisms have increased levels of suffering, deepened conflicts, and hampered the prospects for negotiated settlements. Such developments, combined with tyrannical leadership and the proliferation of weapons of mass destruction, will make warfare in the developing countries much more threatening to world peace.

Terrorism and Drugs

International terrorism remains a major challenge to U.S. interests around the world. Unfortunately, it is a problem that is likely to torment the international community for some time, and U.S. military personnel and civilians abroad are among the main targets.

Terrorists seek to avoid confrontations with armed adversaries. Indiscriminate surprise attacks against "soft" or unarmed targets are normal. This allows terrorists to make a statement with minimal risk to themselves. This tendency to minimize risk while inflicting maximum casualties creates the fear and gains the headlines sought by terrorists. The threat posed by international and regional terrorism has not diminished. There were 457 incidents of terrorism worldwide in 1990, in which 219 people died and 681 were wounded.

Terrorist groups based in the Middle East are likely to remain a major threat to U.S. interests worldwide. The political, religious, and ethnic issues motivating these groups have not been resolved, and infrastructures supporting the terrorists in the region are well developed. Greater U.S. involvement in the region and the increased number of U.S. personnel located in Saudi Arabia have heightened the potential for terrorist attacks against military and civilian targets. Major terrorist leaders, such as Abu al Abbas of the Palestine Liberation Front, George Habash of the Popular Front for the Liberation of Palestine, and the infamous Abu Nidal, have repeatedly threatened retaliation in the event of hostilities with Iraq. A State Department report issued on January 31, 1991, listed some 70 acts of terrorism committed against American and allied interests outside the United States since the war began.

There is also a strong link between drug trafficking and international terrorism. Further, drugs themselves present the United States with a menacing and difficult challenge and form a threat that will require intense, active, and integrated efforts to resolve. Drug trafficking also does grave damage to democratic institutions in many developing countries. The combination of greed, high revenues, spiraling violence, and lawlessness is a direct challenge to both individual states and international order. The costs to governments in suppressing the drug trade and redressing the dislocations it causes are extraordinary and come at the expense of other vital programs. The human costs are immeasurable.

Countering the illegal drug trade has been identified by the President and Secretary of Defense as a high-priority mission for the Department of Defense (DOD). As the campaign against drug trafficking begins to produce results and successful interdiction of the contraband is sustained, the threat to our forces involved in this activity may increase. Drug cartels in South America have made retaliatory attacks against rivals and government targets that have killed and maimed innocent bystanders. The use of these tactics to influence U.S. policy concerning the interdiction of drug trafficking is a threat against which the U.S. Army must plan.

The tools of terrorism will become more lethal and sophisticated in the years ahead, and the destructiveness of terrorist attacks could well increase. We could also see the proliferation of highly sophisticated weapon systems and electronic surveillance equipment among drug traffickers.

Hostile Intelligence Services (HOIS)

The ongoing political changes in the Soviet Union and Central Europe coupled with increasing threats from the intelligence services of developing countries pose difficult challenges for Army counterintelligence. The intelligence services of some of these countries continue to collect actively against the United States; however, their clandestine collection activities are being modified to reflect the current collection needs of their governments. They are focusing on scientific, technical, research, and development information as well as defense information.

During FY90, U.S. Army counterintelligence investigations revealed 204 incidents of confirmed or probable HOIS espionage activity, with an increase in such incidents during the latter half of the year. This is an upward trend that mandates our increased emphasis to protect U.S. Army personnel and information from espionage.

Conclusions

The focus on internal political and economic reconfiguration in the Soviet Union and the planned elimination of the Soviet troop presence in Central Europe have reduced the likelihood of a superpower confrontation. Despite the reduction in the probability of superpower conflict or nuclear exchange, significant threats remain in many regions of the world where the United States has vital interests. As the world becomes more economically interdependent and politically independent, future threats to U.S. national interests may result from regional conflicts. These may arise from unchecked instability that results in interstate and internal conflicts threatening important friends and allies or directly threatening U.S. national security interests. The current Iraqi aggression provides a preview of the potential impact that powerful regional actors can have on the world's economic and political order. In the face of unpredictable and varied threats, a versatile, deployable, and lethal Army remains an essential component of the military posture of the United States.

Supporting the National Security Strategy

The collapse of the Communist bloc and the rise of democracy around the world are due in no small measure to the West's steadfast support of freedom, backed by strong armed forces and the commitment to use these forces to defend vital interests. The continuation of the trends discussed above is causing the United States to reexamine the underlying tenets of the national security strategy that have served the Nation so well since the end of World War II. The United States is now adjusting its strategy and its armed forces to reflect the new realities.

Nonetheless, the fundamental objectives of the national security strategy are likely to endure. Ensuring the survival of the United States as a free and independent nation, with fundamental values intact and institutions secure, will remain the overarching goal of U.S. security strategy. The Nation, in conjunction with allies whenever possible, will continue to pursue the following national military objectives in support of this goal:

- Deter or defeat aggression;
- Ensure global access and influence;
- Promote regional stability and cooperation;
- Staunch the flow of illicit drugs; and
- Combat terrorism.

These objectives remain consistent, yet the ways and means to achieve them are changing. While the United States must continue to maintain sufficient conventional and nuclear capabilities to counterbalance still substantial Soviet military power, the end of the Cold War and the reduction of Soviet adventurism around the world have permitted a fundamental realignment in the focus of U.S. security strategy. The focus was containment of the Soviet Union by forward defense in critical regions of the world. The national military strategy can now be based on achieving U.S. objectives by forward presence backed by the projection of military power from the United States in times of crisis and by the ability to reconstitute additional defense capabilities should the need arise. While this strategic concept of *reconstitution* is not entirely new, its significance will increase substantially as the size of the Nation's armed forces decreases. With smaller forces, the United States must rely increasingly on a well-developed capacity to generate (mobilize, train, and equip) the additional forces necessary to confront the Soviet Union and other potential adversaries. Maintaining this national capability will involve the discipline and foresight to preserve the mobilization apparatus and infrastructure, protect the defense industrial base and the technology base, and maintain a stockpile of critical materials.

This change in focus has fundamental implications for the Army, requiring both the reshaping of Army forces and the adjustment of the Army's strategic roles in support of the new strategy. For example, regional instability, the increasing technological sophistication of armies outside of the NATO-Warsaw Pact alliances, and the Nation's inability to maintain forces in every potential global trouble spot will place a greater premium on the capability to project power rapidly and to sustain substantial numbers of combat-ready forces from the continental United States (CONUS) or from forward-deployed locations. This is the essence of the new strategy. With fewer units forward-deployed, the United States must be capable not only of rapidly moving well-equipped, trained, and ready units to crises locations worldwide, but of massing these forces quickly enough to overwhelm potential opponents. Such a viable power projection capability will be central to the Nation's continued ability to deter aggression.

Second, there also is a diminishing U.S. requirement to maintain large standing conventional forces ready for immediate use to counter a short-notice Soviet attack. Nevertheless, the United States must continue to maintain capable and credible forces forward deployed in Europe, Asia, and other areas of vital strategic interest, although at lower levels of forces than in the past. Similarly, the requirement for rapid reinforcements is reduced. The Army's contribution to forward presence will then be supplemented through the periodic deployment of forces from CONUS or forward bases.

Third, deteriorating economic situations in developing countries, especially when coupled with the possibilities for international terrorism and narcotrafficking, will demand an increased role for military forces in peacetime operations aimed at enhancing the stability and the democratic development of threatened nations. Assistance programs, focused primarily on training, will take on increasing importance as forward deployments of U.S. forces and the overall size of the U.S. military are reduced. These programs will provide nation assistance, promote military professionalism, and ensure worldwide access by U.S. forces, all to protect mutual security interests.

Fourth, the increasing time available to detect and counter a major Soviet retrenchment permits the United States to rely for that eventuality on the capability to reconstitute additional forces over a longer period of time. This has permitted the Army to reduce the size of our Total Force and to adjust our force generation model. This model is the construct by which the Army maintains forces for commitment over time based on their ability to attain essential levels of warfighting capability in peacetime and on the likely length of time available to mobilize, train, and equip these forces prior to their employment. In the future, because of the smaller size of the active Army, the Army's contribution to deterring a protracted major conflict will, necessarily, rely on our ability to generate these additional forces when they are required. Moreover, the Active Component of the Total Force will rely significantly on the Reserve Components for prolonged and major contingencies.

Finally, arms control has become a central means of accomplishing the strategy's goals of stability and deterrence at lower force levels. The ratification and implementation of the CFE Treaty will allow the Army to substantially reduce our European-based forces as Soviet forces are withdrawn from Central Europe. The United States will preserve the military commitment to the Alliance with the continued basing of a two-division corps in Europe, while working with the Allies to enhance the integration of our forces.

The Army's Strategic Roles

The Army fulfills essential strategic roles in support of the national security strategy, and a trained and ready Army is crucial to the execution of this strategy. As U.S. national security strategy is changing to cope with the evolving international environment, the Army is adjusting the way we perform our strategic roles to effectively meet the strategy's requirement for a force organized, trained, and equipped for prompt and sustained land combat worldwide.

First, the Army maintains combat-ready ground forces -- armored, light, and special operations -- for crisis response and other immediate requirements worldwide. All Army forces can be rapidly deployed to regions of potential conflict and assigned to the warfighting commanders in chief (CINC) in tailored force packages to deter conflict or, if necessary, to fight. Operations can range from relatively small actions to protect or evacuate U.S. citizens to much larger deployments, such as we are witnessing in Operation Desert Storm. The Army, therefore, plans to tailor our forces to ensure that the appropriate mix of light, armored, and special operations forces is available to meet the myriad situations the Nation is likely to face in the future. The unpredictability and uncertainty of the future international environment will require units that are prepared for immediate deployment without delays for additional training. Hence, rapid initial deployment capabilities must be provided by primarily Active Component units. Additionally, the increasing proliferation of armored systems in developing countries coupled with the need to quickly mass overwhelming force has caused the Army to assign primary contingency missions to two fully structured, CONUS-based Active Component armored divisions. The Active Army will be structured to sustain deployed units for about 30 days without substantial Reserve Component augmentation. Reserve Component units will continue to provide required individual and unit combat, combat support, and combat service support augmentation.

The Army maintains trained and ready ground forces for crisis response and other immediate requirements worldwide.

Second, the Army provides forward presence with units based abroad in areas of vital interest to the United States and in CONUS. The Army plans to reduce the number of forward-deployed forces where the situation warrants but to retain sufficient forces overseas to sustain U.S. alliance commitments and to contribute to regional stability. As the forward presence of Army forces will remain essential to accomplishing our Nation's objectives, the Army will enhance our ability to maintain forward presence through periodic deployments of Army units and soldiers. These forces will be capable of participating in joint and combined exercises, conducting training of host nation soldiers and units, participating in nation assistance, providing support to counternarcotics efforts and providing other assistance as required.

Third, the Army maintains forces able to reinforce forward-deployed and contingency forces. Through reinforcement, the Army ensures that sufficient forces are available to overwhelm any opponent and terminate conflicts on terms favorable to the United States. Because of the substantially reduced size of the Active Component, the Army will rely on the timely mobilization of reserve forces for major and prolonged contingencies. We also will continue to refine the capability to reinforce from forward locations, as demonstrated with the deployment of VII Corps from Europe in support of Operation Desert Storm. Our current plans envision generating the majority of our reinforcing forces from CONUS. The first units to reinforce will be Active Component divisions rounded out by Reserve Component combat brigades. These units will be capable of early reinforcement of deployed forces or dealing with a second contingency after Reserve Component call-up and training. The second group of units will consist of fully structured Reserve Component combat divisions for follow-on reinforcement. These units will be available after a more extended period for mobilization and training. The third group will consist of cadre divisions. These units will be designed to fill the requirements for additional forces between those needed for follow-on reinforcement and those that can be generated after total mobilization. The Army, in conjunction with the Army National Guard and the U.S. Army Reserve, is currently examining concepts for cadre divisions. In general, the concept involves maintaining partially manned and equipped divisional forces in peacetime that are filled and trained in the event of war. The final category of reinforcing forces will result from the reconstitution of

The Army provided the appropriate mix of forces for Operation Just Cause . . .

wholly new forces following total mobilization. Maintaining the mobilization and industrial bases and providing adequate resources for Reserve Component forces will be essential to the viability of this element of the strategy.

Fourth, the Army participates in disaster relief, emergency assistance, and interdiction of illicit drugs. The Army continues to provide support to civil authorities, most prominently in the area of counternarcotics. In recognition of the serious threat that illegal drug use poses for the Nation, the Army has expanded our role considerably in the effort to deter narcotics trafficking. The Army also continues to provide disaster relief and emergency assistance when called upon by civil authorities.

Finally, the Army provides support to allied and friendly nations through peacekeeping, security assistance, and army-to-army initiatives. U.S. strategy is coalition-based, relying upon the combined action of U.S. and allied forces. The Army will continue to play an important role in fostering cooperative relations between the United States and other nations. Enhancing stability and democratic political development will become an increasingly important and cost-effective means of combating instability as U.S. defense budgets decline.

In the decade ahead, the Nation will confront a security environment that is demanding, diverse, and dangerous. Consequently, even while countering the Iraqi aggression in Kuwait and building down the Army in an era of declining defense resources, the Army must retain the capability to perform our strategic roles.

Operations Just Cause and Desert Storm

Within the last 13 months, Army units, in conjunction with the forces of our sister services, have conducted two major power projection operations that required rapid, no-notice projection of combat power from the United States, and, in the latter case, from Army units forward-deployed in Europe. Operations Just Cause and Desert Storm are good examples of the Army's strategic capabilities and the effectiveness of thorough joint planning and execution. They also have clearly demonstrated the need for a trained and ready Army, versatile enough to rapidly tailor forces for specific situations and capable of quickly deploying lethal combat power from the United States, overseas bases, or both.

In December 1989, the Army rapidly deployed light and special operations units to Panama where, in conjunction with armored units and the forces of the other services, they went directly into combat to protect American and Panamanian lives. The overwhelming success of Operation Just Cause allowed our forces quickly to make the transition from combat to the nation-assistance phase, Operation Promote Liberty. The Army continues to assist the Panamanians in reinforcing their democratic institutions. Our work there has centered on civic action projects to assist in school and health clinic revitalization; repairing roads; installing sewers; and conducting medical, dental, and veterinary assistance visits. Combined patrols with the new Panamanian police were conducted until December 1990, when the Panamanian police took over full responsibility for the patrols.

In August 1990, in response to the Iraqi invasion of Kuwait, the President directed the deployment of U.S. forces to the Arabian Peninsula to deter further Iraqi aggression, to defend Saudi Arabia, and to protect vital American interests in the region. The Army rapidly deployed forces to protect critical installations and began the movement of the additional combat forces and the multitude of support units needed to sustain U.S. and, in some cases, allied forces. As in Panama, the Army deployed a tailored mix of forces to meet the requirements for this particular operation. Unlike Operation Just Cause, in Operation Desert Storm the emphasis was on moving armored forces to confront heavily armed, modern Iraqi forces.

. . . and Operation Desert Storm.

The deployment began with airborne infantry and air defense units moving by air to secure ports and arrival airfields. This was quickly followed by the deployment of combat-ready armored formations by fast sealift to complement the capabilities of lighter Army and Marine Corps forces. These forces arrived in theater closely behind the airlanded Army forces and the Maritime Pre-positioning Ships of the Marine Corps. As these initial units moved into place, other Army armored forces from Europe and the United States were deployed to the theater beginning in late November to provide a viable counter-offensive capability to the coalition. The unified planning efforts of DOD, the services, the U.S. Transportation Command, and other government agencies, and the 24-hour-per-day operations by port handlers, air traffic controllers, ship refit crews, and soldiers, sailors, marines, and airmen made possible the most rapid projection of major combat power in history. The overall success of the deployment is a testament to the effectiveness of joint action in response to the needs of the operation and to the Army's success in maintaining versatile, deployable, combat-ready units in the Total Force.

The vast deployment of soldiers and equipment to Saudi Arabia was truly a Total Army effort supported by our sister services. In August, the President authorized the Selected Reserve call-up to permit the use of Reserve Component combat support and combat service support units and individuals whose unique skills and capabilities were essential for mission success. In November, this initial authority was expanded to increase the Army's call-up authorization and to provide for the call-up of Reserve Component combat units for 180 days (with the option of renewing this for a second 180 days). On January 18, 1991, the President declared partial mobilization. This declaration provided for an increase in the Army's call-up authorization to 220,000 personnel for a period not to exceed 12 months and permitted the Army to mobilize Individual Ready Reservists in addition to members of the Selected Reserve.

To date, the Army has mobilized over 150,000 soldiers and over 1,000 units from virtually every state, the District of Columbia, Puerto Rico, and Guam. Thousands of these soldiers are serving overseas in Saudi Arabia, providing such critical capabilities as water purification and distribution, transportation, port operations, fuel handling, supply and services, maintenance, and medical support. Many others serve in CONUS and overseas assisting the deployment in such areas as port security and terminal operations or providing essential services previously provided by deployed active units. This latter category includes medical, legal, military police, and air ambulance units. Selected combat units, such as the Army National Guard "roundout" brigades of active Army divisions, also have been called to active duty.

As deployment of Army units and equipment continued, the challenge to Army logisticians to sustain this force increased proportionately. This challenge was met with imaginative logistics strategies to overcome long supply lines, an austere infrastructure, and the harsh desert environment. Deployment of U.S. forces as part of Operation Desert Storm has been an unqualified success. These forces stopped Iraqi aggression and served as the cornerstone of a unified, multinational effort to evict Iraq from Kuwait.

The fact that Operations Just Cause and Desert Storm occurred as the Nation debated future national security policy and the future size and composition of the Armed Forces has enabled the Army to examine some of the assumptions, policies, and capabilities that underlie our vision for the future. For example, the Total Force Policy, the Ready Reserve Force (RRF), and the Civilian Reserve Air Fleet all received actual operational tests. The lessons learned will be extremely useful in formulating future programs and policies. As these lessons are reviewed, however, it must be remembered that the Army requires capabilities to operate from peacetime engagement to general war. Especially in this era of declining defense resources, lessons learned must be applied toward improving the versatility, deployability, lethality, and expansibility of the Total Army and not narrowly focused on "quick fixes" for shortcomings identified in the current operation.

Worldwide Mobility

Army forces are trained and ready to deploy rapidly to meet requirements for armored, light, and special operations forces anywhere in the world. Adequate and appropriate worldwide lift is critical to the ability of these units to support national objectives.

As evidenced by Operations Just Cause and Desert Storm, Army forces may be required to deploy with little or no warning. Accordingly, it is essential that each leg of

The Army relies on sealift to move our rapidly deployable armored forces.

Airlift provides the capability to insert forces rapidly

the worldwide mobility triad (airlift, sealift, and pre-positioning) be responsive and readily available to support U.S. worldwide mobility requirements. The congressionally mandated Defense Mobility Requirements Study (DMRS), being directed by the Joint Chiefs of Staff, will explore the contribution of each leg of the triad, considering lessons learned in Operations Desert Storm and Just Cause. The study's goal is to identify requirements for airlift, sealift, and pre-positioning to support U.S. responses to likely contingencies in the post-Cold War era.

Airlift provides the capability to insert rapidly deployable forces into a theater of operations by either forcible entry or airlanding, to link soldiers with equipment deployed by sea, and to deliver time-sensitive, high-priority cargo. During Operation Desert Storm, surge requirements for strategic airlift and initial reception capabilities significantly stressed the Military Airlift Command's ability to rapidly deploy the initial force and to link airlifted troops (of all services) with equipment deployed by sea. Programmed airlift improvements call for increasing U.S. airlift capacity from the current 48 million ton miles per day (MTM/D) to 55 MTM/D by 1994. While this is a worthy planning objective, it seems increasingly apparent that contingency operations require consideration of absolute numbers of capable airframes as well as a gross planning figure like MTM/D. Airlift requirements are now under review as part of the DMRS.

The Army strongly supports the C-17 program and would support proposals to increase the number of airframes to be procured. The C-17, which will augment and eventually replace the aging C-141 fleet, carries larger payloads, including outsized loads, and can use smaller, more austere airstrips, thus easing airfield congestion at major debarkation ports. Its mid-air refueling capability gives it global range. It is a worthy and essential successor to the C-141B.

The Army relies on sealift to deliver the equipment of our rapidly deployable armored units and reinforcing units. The bulk of our combat support and combat service support units and sustaining supplies also move by sea. Even though the deployment to Saudi Arabia has been ultimately successful, delays in the activation of certain ships in the RRF during Operation Desert Storm and the general decline in the U.S. Merchant Marine indicate a need to review U.S. military sealift posture and capabilities. The Army is working with the U.S. Navy, the U.S. Transportation Command, and the Maritime Administration to develop a coherent sealift program that supports the Nation's requirement to project forces rapidly. The Army supports increasing the number of fast, immediately available roll-on, roll-off ships maintained in reduced operating status and reviewing the status of the RRF. The Nation's sealift fleet must support the immediate, simultaneous lift of two armored divisions.

In the past, the Army has used overseas pre-positioning of unit equipment and logistics stocks to enhance the mobility and flexibility of Army forces. Supplies pre-positioned afloat, for example, played an important role in the early stages of Operation Desert Storm. The Army is evaluating future requirements for pre-positioned equipment in Europe. We also plan to reconstitute and enhance the previously maintained logistics stocks from our afloat pre-positioned ships.

The Army also recognizes the requirement to increase our internal capabilities for worldwide deployment operations. As we modernize and restructure our forces, we have made improving our ability to deploy rapidly and to sustain lethal forces in austere environments a high priority in training.

Peacetime Engagement

In the President's March 1990 National Security Strategy of the United States, his stated objectives include seeking "a stable and secure world fostering political freedom, human rights, and democratic institutions." This renewed emphasis in U.S. national security strategy on assisting the continued growth of democracy suggests a greater focus on peacetime operations that improve foreign countries' peaceful democratic and economic development and security.

Nation Assistance

It is clearly in the national interest to promote the stability of and provide assistance to emerging democracies. Stability in this context means establishing conditions that permit orderly change and that will allow democratic governments and market economies to flourish. The United States promotes these conditions because of its commitment to support democratic values and its desire to promote human well-being and respect for human rights, as well as the need to prevent instability and unrest from threatening important security and economic interests.

For the United States, it is a particularly opportune time to expand the use of its existing defense capabilities in nation assistance. The Army possesses valuable knowledge about nation assistance, including expertise relating to health care, infrastructure rehabilitation, management, and environmentally sustainable development. Traditionally, the Army's expertise has been used in connection with military operations; however, these skills are now being applied in innovative ways. The Army, working in partnership with other U.S. agencies, provides health, technical, and management assistance to nations to further their development and promote their stability. The emphasis is on developing the nations' capabilities in these areas, transferring skills to the civilian sector of the assisted countries, and making their institutions self-sufficient.

From the Army's surveying and mapping activities in the early years of the United States to the development of waterways and the construction of space facilities, the Army has played an integral part in U.S. development. Overseas after World War II, the Army provided nation assistance to a devastated Europe. Later, the Army helped rebuild war-ravaged Korea. The Army continues to make significant contributions both at home and abroad. A current example is the support provided to the Environmental Protection Agency by the Army Corps of Engineers for procuring and overseeing the installation of improved water treatment equipment (and associated training) for the city of Krakow, Poland.

The Army possesses valuable expertise applicable to nation-assistance activities.

Counter-Drug Effort

Detecting, monitoring, and countering the production, trafficking, and use of illegal drugs is a high priority national security mission of the Department of Defense. Accordingly, the Army is participating actively in antidrug operations as an integral part of DOD execution of the national drug control strategy.

The Army provides counter-drug support to 5 CINCs; over 40 Federal law enforcement agencies; over 2,000 local law enforcement agencies throughout the United States; and a growing number of Latin American countries, such as Peru, Colombia, Bolivia, and Mexico. The Army also provides operational support, intelligence, equipment, facilities, training support, and personnel to U.S. Government agencies and Drug Law Enforcement Agencies (DLEA) and supports military assistance programs by providing a wide variety of training and counter-drug operational support packages to selected foreign governments.

The primary counternarcotics effort is focused on cocaine coming from South America. Drug trafficking is estimated to be a $500 billion operation annually. Over 65 percent of the coca is produced in Peru, and drug traffickers in Colombia convert over 80 percent of the world's coca supply to cocaine, smuggling the great majority of the processed cocaine into the United States through the southwest border states. Consequently, the United States is focusing on providing the Andean nations with U.S. counter-drug support. In these source countries, Army personnel are providing the country teams and U.S. antidrug agencies with intelligence, materiel, and training support. Drug Enforcement Agency agents assigned to source countries receive training in Army schools in skills required to conduct operations in remote areas. Army forces provide mobile training teams to train host country antidrug forces in skills ranging from light infantry operations to the conduct of maintenance and logistical support for antidrug forces. Pressures by host country forces, trained by the United States, are now forcing traffickers to seek new areas of operations. The Army's focus now is on expanding this program to train forces to preempt such moves.

The Army also provides highly qualified personnel to fill joint manning requirements for commands tasked by the Secretary of Defense to conduct expanded counter-drug support missions. In support of the theater commander's antidrug efforts, the Army assigns Army personnel to staff Joint Task Force Four located in Key West, Florida; Joint Task Force Five located in Alameda, California; Joint

A Colombian soldier watches the destruction of a cocaine laboratory. © Picture Group

Task Force Six located at Fort Bliss, Texas; and U.S. Southern Command counternarcotics operations.

Within the United States, the Army's commitment to the counternarcotics effort continues to expand. Missions performed by Army personnel include legal assistance to the U.S. Attorney General; automated data processing analysis to the Office of National Drug Control Policy; and liaison, planning, training, and detection and monitoring assistance to U.S. Customs, the Border Patrol, the Drug Enforcement Administration, the U.S. Coast Guard, and the Department of State. The Army also has loaned or leased military equipment, such as night vision devices, forward-looking infrared radar, radios, and aviation assets, to the DLEAs, greatly enhancing their capabilities. The Army's emphasis on counter-drug efforts to solve the Nation's illegal drug problem will continue, and we will remain active in developing initiatives that can assist in the antidrug effort.

Security Assistance Program

The United States provides security assistance to friendly countries to promote their stability and to help them cope with threats to mutual security interests. One of the major functions of the Army security assistance program is to help friendly and allied countries enhance their defense capabilities. This is done through the education and training of foreign students at Army schools and facilities and through the sale and grant-transfer of Army equipment and services to foreign countries and international organizations. The Army security assistance program includes 132 foreign countries and 7 international organizations.

The usefulness of security assistance is clearly demonstrated in Operation Desert Storm. To support this major multinational effort, the Army has transferred, through the security assistance program, substantial amounts of military materiel to friendly countries directly involved in the operation. Further, past security assistance programs assisted in the development of the infrastructure that has been essential to supporting the deployment of U.S. forces on Operation Desert Storm. More importantly, Army-supported education, training, and combined exercise programs have made a significant contribution to the military skills and professionalism of the armed forces of several of our coalition partners. These efforts have significantly improved their combat effectiveness and enhanced their ability to conduct combined operations in conjunction with other coalition forces in Operation Desert Storm.

In Latin America, the goal of the Army security assistance program is to assist regional governments in strengthening their internal defense and to help them reduce illicit drug production and trafficking. Army support of counter-drug activities in Latin America includes deliveries of helicopters, support equipment for civic action activities, general aviation support items, vehicles, communications equipment, small arms, and individual equipment.

Elsewhere, security assistance programs are aimed at helping friends and allies meet their legitimate security needs; promoting military professionalism, democratic institutions, and respect for human rights; and fostering closer relations between the United States and the armed forces of other nations.

The challenges confronting the Army security assistance program are numerous and demanding. Funding is limited, and numerous constraints restrict the flexible application of resources. The Army is conducting a review of our security assistance programs aimed at improving their efficiency and effectiveness. As part of this review, Army security assistance programs are being more fully integrated into the Army International Activities Plan to improve coordination among all Army international activities. Also, efforts are under way to improve security assistance financial management, program responsiveness, and support for nonstandard items of equipment. The Army is reviewing procedures for selection and management of personnel assigned to security assistance positions. The goal of these improvements is to make security assistance an even more effective instrument in support of national security strategy and Army policy in a period of tight resources. To accomplish this, Army-administered programs, as well as the security assistance program in general, must have adequate funding and sufficient flexibility to meet changing national security priorities.

Support to Civil Authorities

The Army provides support to civil authorities for civil disturbances, disaster relief, and various other purposes as the need arises. Such military support to civil authorities is authorized by law. The Secretary of the Army is the DOD Executive Agent for domestic civil disturbance, disaster, and other assistance. As such, he directs the employment of Department of Defense resources for these uses.

Demand for Army support in the past year has not been as great as in 1989, when we assisted in the cleanup of the Alaska oil spill, recovery operations following Hurricane Hugo, fighting forest fires in the western United States, and relief after the earthquake in California. Nonetheless, as we have done for the past 4 years, the Army provided assistance to the Boise Interagency Fire Center last year to fight fires in California and Oregon. Over 2,000 soldiers took part in these operations.

Arms Control

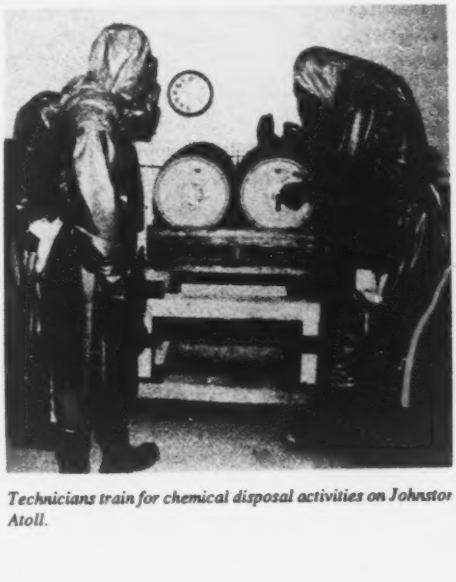
The role of arms control as a component of U.S. national security strategy has grown steadily in importance in the last several years. The U.S. goal in arms control negotiations is to seek equitable agreements that enhance U.S. and allies' security. Such agreements are intended to reduce military capabilities that are necessary to initiate attack, enhance predictability in the size and structure of forces in order to reduce the fear of aggressive intent, and ensure confidence in compliance through effective verification. Arms control agreements directly affect U.S. Army force structure and can influence the size, armament, and disposition of potential adversaries' forces. The Army also will be called upon to support verification regimes by providing personnel, equipment, and expertise to arms control verification efforts.

In November 1990, at the Paris Summit Conference on Security and Cooperation in Europe (CSCE), U.S. and European leaders concluded two significant arms control agreements.

First, NATO and Warsaw Pact heads of state signed the Treaty on Conventional Armed Forces in Europe. The CFE treaty addresses five categories of conventional armaments -- tanks, artillery, armored combat vehicles, combat helicopters, and combat aircraft. After entry into force, the treaty requires that over the subsequent 4 years, the USSR and its former Warsaw Pact allies destroy thousands of weapon systems in order to eliminate the large numerical superiority they have enjoyed, thus creating numerical parity with NATO in these systems at levels at or below NATO's current holdings. The treaty includes a robust verification regime that will provide a mechanism for ensuring that all parties comply with the treaty provisions.

When ratified and implemented, the CFE Treaty, coupled with the changing nature of the Warsaw Pact and unilateral Soviet troop withdrawals from Central Europe, will significantly reduce the ability of participating nations to conduct surprise attacks and large-scale offensive operations, thereby reducing the risk of war and enhancing stability. The U.S. Army in Europe already has begun to implement certain aspects of the treaty through transfer of equipment to NATO allies and preparing data for exchange with other treaty signatories. The Army also will support verification programs as well as have our activities subject to verification by the other side. Finally, the Army is working with the regional commander in chief and our NATO allies to examine the military implications of parity in conventional forces. The result will be new defense concepts and plans appropriate to the security circumstances of post-CFE Europe.

Second, complementing the CFE Treaty, the 34 nations of the CSCE are expanding the number of confidence- and security-building measures (CSBM) in effect in Europe. CSBMs are procedures that allow nations to observe each other's peacetime military structure and activities. The expanded measures will have a positive impact on the relaxation of tensions in Europe through the exchange between nations of detailed information on military forces and broadened military-to-military con-



Technicians train for chemical disposal activities on Johnsto Atoll.

tacts. In addition, CSCE negotiators are working hard to lay the foundations for a Center for Prevention of Conflict, a new institution designed to be a locus for CSBM implementation as well as the forum for early resolution of European security problems. As in the case of the CFE Treaty, agreements flowing out of CSCE negotiations will have a direct impact on how the U.S. Army operates and trains in Europe.

U.S. national policy is to seek a comprehensive, effectively verifiable ban on chemical weapons (CW). The 40-nation Conference on Disarmament is negotiating a CW treaty that was tabled in April 1984 by then Vice President Bush. The United States has promised to destroy over 98 percent of its stockpile of chemical weapons in the first 8 years of a treaty banning chemical weapons, and all of its stocks in 10 years if all nations with a chemical weapons capability join the treaty. In June 1990, the United States and the Soviet Union took a significant step toward a global ban by signing a bilateral agreement to cease production and to destroy the vast majority of their chemical weapons stocks. The U.S. Army already has started the destruction of these weapons, beginning in June 1990 at the Johnston Atoll Chemical Agent Disposal System. Construction of other disposal and training facilities is under way.

Proliferation of chemical weapons in developing countries continues to be a major concern. The United States is working towards a global, verifiable ban on chemical weapons. Until this can be achieved, the Army will continue to support the maintenance of forces trained and equipped to operate in a chemical environment.

Conclusions

The national security strategy of the United States is evolving to provide the framework for shaping the Nation's defense capabilities for the changing international environment. As the President stated in his August 2, 1990, address to the Aspen Institute Symposium, "Our task today is to shape our defense capabilities to these changing strategic circumstances. In a world less driven by an immediate threat to Europe and the danger of global war -- in a world where the size of our forces will increasingly be shaped by the needs of regional contingencies and peacetime presence -- we know that our forces can be smaller." The national security strategy is evolving from one of containment of the Soviet Union to one of forward presence backed up by the projection of forces from the United States for peacetime engagement and crisis action. This evolution has fundamental implications for the way that we structure Army forces and perform strategic roles. The Army is in the second year of shaping a smaller, versatile, deployable, lethal, and expansible Total Force that is trained and ready to meet the Nation's future requirements for land forces.

Regional Focus

Despite the progress made by democracy in many parts of the world, political instability sporadic economic development, regional conflicts, and ethnic tensions will continue to pose threats to global peace and vital U.S. interests. In light of this situation, it seems clear that maintaining peacetime presence and responding to regional contingencies will present complex challenges to Army forces in the years ahead. These challenges will be as diverse as the regions of the world where they exist.

The United States continues to rely on collective security relationships with other friendly countries to promote peace and to protect mutual regional security interests. Such relationships assist allied and friendly countries to defend themselves and to reduce the risk of involvement of U.S. forces. The Army provides versatile, deployable, trained, and ready forces to U.S. theater commanders around the world to sustain U.S. forward presence, and, if necessary, for combat operations. These forces support these collective security relationships and engage in a wide range of activities designed to build individual national and collective defense capabilities. In addition, the forward presence of Army forces deters conflicts, allows expeditious responses to crises, and provides tangible evidence of America's commitment to protect the mutual security interests of the United States and its friends and allies. As the size of our permanent forward deployments decreases, the ability of the Army to project forward presence from CONUS will be crucial to deterring conflict and sustaining regional alliances.

Europe and the Soviet Union

With the impending demise of the Warsaw Pact, Europe faces a greatly reduced residual Soviet threat. The traditional threat of a massive Soviet offensive against NATO has withered in the face of Soviet unilateral withdrawals, military restructuring, bilateral agreements to remove forward-stationed troops, and the limits of the CFE Treaty. The threat of Soviet attack has been replaced by the more ambiguous threat posed by instability in Central Europe and the Soviet Union and the possibility of a conservative retrenchment in the Soviet Union.

NATO will continue to be the linchpin for meeting the security challenges in Europe. The United States will continue a commitment to NATO at levels appropriate to Europe's evolving security situation. The Army provides extensive forces to the U.S. European Command for employment by the Alliance, including units in place in Europe and units that would deploy to Europe in the event of crisis or hostilities. Although the number of U.S. Army units in Europe will be reduced in the future, the remaining forces will remain well-trained and ready to fight when called upon. The U.S. Army also will retain the capability to reinforce NATO forces in Europe and to project European-based Army forces beyond the NATO area if circumstances require, as was the case in Operation Desert Storm.

The task of implementing a successful conventional arms control agreement is still before the Alliance. It will require that the United States work closely with NATO allies to ensure that individual national contributions to the Alliance continue to support the cause of mutual defense and collective security that have served the United States and the allies so well in the past.

Middle East and South Asia

As is now obvious, this is a region of vital importance to the United States because of the reliance of the global economy on the region's energy resources and strong U.S. political and military ties to many of the region's countries. U.S. interests in the region will continue to be threatened by ethnic rivalries, economic disparities, the continuing Arab-Israeli conflict, and radical Islamic fundamentalist movements. The region also is among the most heavily armed in the world, to include increasing arsenals of sophisticated conventional weapons as well as weapons of mass destruction. Iraq's aggression against Kuwait poses a direct challenge to a peaceful post-Cold War world order. If left unchecked, Iraq's control over a significant portion of the world's oil coupled with its large conventional military and aggressive development of weapons of mass destruction would have constituted a serious threat to its neighbors as well as to the international economy. The threat of terrorism also has risen as a result of Iraq's policy of confrontation.

Operation Desert Storm will likely broaden the scope of the Army's future roles in the area. The Army may become more heavily involved than in the past with security assistance, combined exercises, and regional defense planning. Army forces provided to the U.S. Central Command will facilitate peacetime engagement in the Middle East and Southwest Asia through army-to-army relations and nation assistance and will provide the CINC the ability to maintain a credible joint power projection capability.

SURFACE TO SURFACE MISSILES IN THE MID-EAST

	TYPE OF MISSILE
KUWAIT:	FROG-7
YEMEN:	SCUD, SS-21, FROG-7
SYRIA:	SCUD, FROG-7, SS-21, SS-C-1B, SS-C-3
LIBYA:	SCUD, FROG-7
IRAN:	SCUD, OGHAB, NAZEAT, SHAHIN 2
IRAQ:	FROG-7, SCUD-B, ABBAS, HUSSEYN
EGYPT:	FROG-7, SCUD-B
ISRAEL:	JERICO 2, LANCE
SAUDI ARABIA:	CSS-2

SOURCE: INTERNATIONAL INSTITUTE FOR STRATEGIC STUDIES, THE MILITARY BALANCE 1990-91.

Along with the men and women deployed for Operation Desert Storm, soldiers serve in Egypt's Sinai Peninsula with the Multinational Force and Observers and with the United Nations Truce Supervision Organization in Israel, Egypt, Syria, and Jordan. These soldiers are visible symbols of U.S. commitment to stability and the peaceful settlement of long-standing disputes.

The primary threat to security in South Asia is the continued rivalry between India and Pakistan. Both are heavily armed, and India is a nuclear power. A conflict between them could be extremely violent and could rapidly spread to other countries in the region. A U.S. goal in this region is to encourage these two nations to resolve their differences peacefully. The U.S. Army maintains military-to-military contacts with both India and Pakistan, although relations with the latter are currently limited as a U.S. policy response to Pakistan's nuclear program.

East Asia and the Pacific

Political trends in Asia are moving toward greater political openness, a natural accompaniment to the sweeping socioeconomic changes of recent decades. The role of ideology has declined in the Marxist-Leninist states as well as others, with second and third generation leaders taking a more pragmatic, problem-solving approach to the issues confronting them. Economic relations are penetrating ideological boundaries, as indicated by the growth of trade and investment between China and South Korea and China and Taiwan. Even the North-South Korean relationship is showing a few signs of flexibility.

Nonetheless, serious problems remain. Although the standing militaries of Vietnam and China recently have been reduced, they remain large and capable forces. Conflicting territorial claims, especially over the Spratly Islands in the South China Sea, could lead to armed clashes. North Korea remains rigidly opposed to any change to its existing political structure, a disturbing fact given the existence of its extraordinarily large armed force, its estrangement from the rest of the international community, and its refusal to forswear Korean reunification by military means. Certain governments have failed to meet their citizens' expectations of minimal social and economic needs, promoting the conditions for insurgency. The growing flood of narcotics out of the Golden Triangle

The Golden Triangle region is a source of drugs entering the United States. © *Gamma Liaison*

region is directly threatening the United States and other countries in both the West and Asia. Further, the generational changes taking place in virtually every Asian country, especially China, Taiwan, North Korea, and Indonesia, are cause for concern as well as hope. Although these changes may lead to greater pragmatism and willingness to cooperate with neighbors, they might also result in instability.

National security objectives in the region include sustaining U.S. presence throughout the area, ensuring continuous access to lines of communications, and providing a counter to Soviet and Chinese power. To accomplish these objectives, the United States is a party to a number of bilateral treaties and has forward-deployed forces in the region. The primary security relationships are with Japan, the Republic of Korea, the Philippines, Thailand, and Australia. The major forward presence of Army forces remains in the Republic of Korea. The Army works within U.S. bilateral agreements to improve combined doctrine, tactics, and overall interoperability with regional armies to enhance intraregional cooperation.

Recent developments in the area include the establishment of Headquarters, United States Army, Pacific, in Hawaii and the withdrawal of approximately 5,000 soldiers from the Republic of Korea. The Army continues to seek the most efficient command and control for the vast Pacific region.

Army forces in the Pacific enable the U.S. Pacific Command in Hawaii and the Combined Forces Command in Korea to deter aggression throughout the theater and unambiguously demonstrate U.S. commitments to Korea and Japan. For CINC, Combined Forces Command, they provide the capability to participate in the defense of Korea. For CINC, U.S. Pacific Command, they provide a centrally located, rapidly deployable reserve and the ability to participate in nation-assistance programs and military-to-military contacts.

Army contingency and reinforcing forces also are available to support the Pacific CINCs. The Army further provides forces for peacetime engagement -- maintaining army-to-army relations and aiding in nation assistance, disaster relief, and support to civil authorities. Finally, the Army is charged by CINC, U.S. Pacific Command, as the principal agent in assisting law enforcement agencies to prevent trafficking in illegal drugs and helping host nation militaries to control the flow from their countries.

Latin America

Latin America is confronted by three major challenges that have a synergistic effect in thwarting the development and expansion of democratic pluralism while simultaneously retarding economic growth: terrorist and insurgent violence, drug trafficking and narcoterrorism, and massive external debt.

During the last decade, the region experienced a decline in economic growth and living standards and a simultaneous growth of external debt that is now approaching $450 billion. Although several newly elected governments are pursuing mainstream economic recovery programs designed to reverse negative trends and stimulate foreign investment, these reform packages will take years to complete. In some cases, the prospects for successful economic reform and reduction of the debt burden are uncertain.

Economic difficulties are exacerbated by the increased levels of violence associated with active insurgencies and narcoterrorist activities. Central government authority is being challenged by a marked increase in the involvement of guerrilla groups in all phases of production and distribution of cocaine, particularly by the Revolutionary Armed Forces of Colombia and the Sendero Luminoso in Peru. Prolonged insurgencies and drug-related violence thwart economic recovery programs, undermine democratic values, and increase the probability of a reversal of the prodemocratic regional trends of the 1980s.

U.S. security is inextricably linked to the collective security, social peace, and economic progress of the Western Hemisphere. The United States promotes peace and economic well-being within the hemisphere through commitment to the stability, growth, and economic development of democratic governments in Central and South America and the Caribbean. This approach is consistent with U.S. security strategy and supports the national policy of seeking a mature partnership with neighbors in Latin America.

This U.S. policy recognizes that continued influence in the region is essential to confronting destabilizing aggression. Army partnership in organizations like the Conference of American Armies assists in achieving this objective by improving military-to-military contacts and the discussion of hemispheric security issues. The Army further supports U.S. regional objectives through the provision of soldiers and equipment for nation-assistance projects, civic action programs, and infrastructure development. The Army also participates in security assistance activities, training programs, combined training exercises, and DOD efforts to counter the illegal drug trade that threatens the democracies of the Western Hemisphere.

The Army provides U.S. Southern Command with capabilities that range from individual area specialists to the potential employment of a multidivision corps for rapid deployment in times of crises. Army combat support and service support units form the foundation of many regional civic action programs, and much of U.S. Southern Command's internal development program is built around the capabilities of Army special operations forces. The Army school system also supports the region through training of foreign officers and soldiers from the region and through a variety of exchange programs. The return to democracy of most nations throughout Latin America emphasizes the importance of U.S. and Army efforts to support professional, apolitical militaries in the region.

Africa

The problems that affect much of Africa are similar to but in many ways even more severe than those that beset other regions. Climatic catastrophes, starvation, and the epidemic spread of the acquired immuno-deficiency syndrome (AIDS) virus compound the adverse impacts of population growth, political unrest, insurgencies, and tribal and ethnic animosities. International economic fluctuations also inflict a significant blow on single-commodity economies, causing wide and unpredictable swings in economic fortunes. Such challenges vastly complicate the problems of economic and political development, create severe human suffering, and greatly reduce the effectiveness of outside assistance.

Africa's strategic importance as a major contributor to the world supply of raw materials and minerals, as well as a region of enormous human potential, will persist throughout the 1990s. U.S. Army activities there are governed by the U.S. commitment to promote sustained and equitable economic, political, and social development as keys to a stable and secure Africa. The United States seeks to foster regional stability and the growth of democratic institutions by assisting African governments to protect their natural resources and resist destabilizing outside influence and by supporting internal political reconciliation and development efforts.

The Army provides U.S. European Command and U.S. Central Command with a range of capabilities for potential employment in the region. The Army school system also supports these regions through training of indigenous officers and soldiers from the region and through a variety of exchange programs.

Army International Activities Plan (AIAP)

The Army International Activities Plan establishes guidance, methods, and means for the conduct of activities involving Army interactions with the armed forces, governments, and peoples of foreign nations. Army international activities support U.S. foreign policy goals and the national security strategy of the United States. The goal of Army international activities is to strengthen army-to-army relations and promote allied and friendly nations' cooperation in the achievement of U.S. foreign policy and military strategy objectives. An effective international activities program strengthens collective defense measures and helps meet the legitimate security needs of friends and allies by improving their ability to protect mutual security interests. The AIAP aids Army planners in determining what types and mixes of international activities to pursue and provides the methods and means for the worldwide coordination of Army international activities to ensure that finite U.S. defense resources are used effectively to support U.S. security strategy.

The Department of the Army provides central policy guidance and coordination under the AIAP. Implementation is centered on the Army component command of the regional CINC. Each regional Army component command is responsible for integrating country team requests for Army support, articulating the CINC's priorities, and coordinating execution of international activities with the Department of the Army and appropriate Army agencies. The AIAP links regional priorities with available international activities by identifying those activities that complement the peacetime actions of other U.S. agencies and that offer the best potential for enhancing the Army's operational mission capabilities.

A goal of Army international activities is to achieve U.S. objectives by strengthening the forces of allied and friendly countries.

II. Shaping the Army for the Future

The Army is reshaping a trained and ready force for the future.

Adapting to Change

Last year's Army Posture Statement laid out the conceptual underpinnings of our plan to reshape the Army into a smaller, capable Total Force for the future. This plan was based on careful assessments of the future capabilities the Army would require to fulfill our strategic roles in support of the national military strategy, the threats the Nation was likely to face through the end of the decade, and the lessons learned from demobilizations following recent conflicts. It was developed, beginning in 1988, to provide the framework within which the Army could efficiently adapt to change in the international security and domestic fiscal environments while minimizing risks.

The essence of our plan was to reduce the size of the Army and to accept some near-term risks in modernization to maintain the quality and readiness of the Total Army during the transition and for the future. We planned to shape a versatile, deployable, and lethal Army, based on adherence to six fundamental imperatives and commitment to a controlled and rational build-down process.

The importance of sustaining near-term readiness as we build down the Army was shown by our analysis of previous large Army restructurings following World War II, Korea, and Vietnam. This analysis indicated that the Army's warfighting capabilities declined significantly as a result of the precipitous rate at which past reductions took place. This resulted in substantial and avoidable casualties when American forces were committed to unanticipated combat. Building down the Army during such a turbulent international transition period as we now face is clearly not without risk. The Army's plan is based on attenuating this risk by maintaining a trained and ready force throughout the build-down for rapid action in unforeseeable contingencies.

All near-term actions to reshape the force also must be taken with an eye toward the future. The Army that is currently executing Operation Desert Storm is the result of past policy decisions, investment, and commitment to fielding trained and ready forces. Our quality, volunteer soldiers are manning weapon systems developed, in some cases, over the past two decades. They are being led by leaders whose skills have been honed by training and leader development opportunities over the same period. These leaders have remained in the Army not only because of their commitment to the Nation, but also because of the challenging career opportunities and the quality of life that the Nation has provided them. In making near-term decisions, we must ensure that we continue to build for the uncertain and unpredictable future.

At this time last year, we planned to reduce the size of the Army from a 5-corps, 28-division force to a 4-corps, 23-division force by the mid-1990s. The requirement to meet the targets of last year's budget agreement necessitated further reductions. Our current plans envision building down to a 4-corps, 20-division force by the mid-1990s. We strongly believe this is the minimum force required for the Army to accomplish our strategic roles in support of national security strategy.

The future Army will be largely CONUS-based. Forward deployments will be reduced to the minimum levels sufficient to maintain credible deterrence and to demonstrate unambiguous commitment and resolve to allies and friends worldwide. As discussed in Chapter I, additional forward presence will be maintained through the periodic deployment of forces from the United States or from forward locations. The Army in CONUS will likely consist of five active divisions tailorable for crisis response and other immediate requirements worldwide; an early reinforcing force of three active divisions rounded out by Army National Guard brigades; a follow-on reinforcing force of six Army National Guard divisions; two cadre divisions; and the requisite general support forces. When these reductions are completed, the Nation will be at the limits of acceptable risk with regard to its ground forces, even with the continued nonconfrontational posture of the Soviet Union.

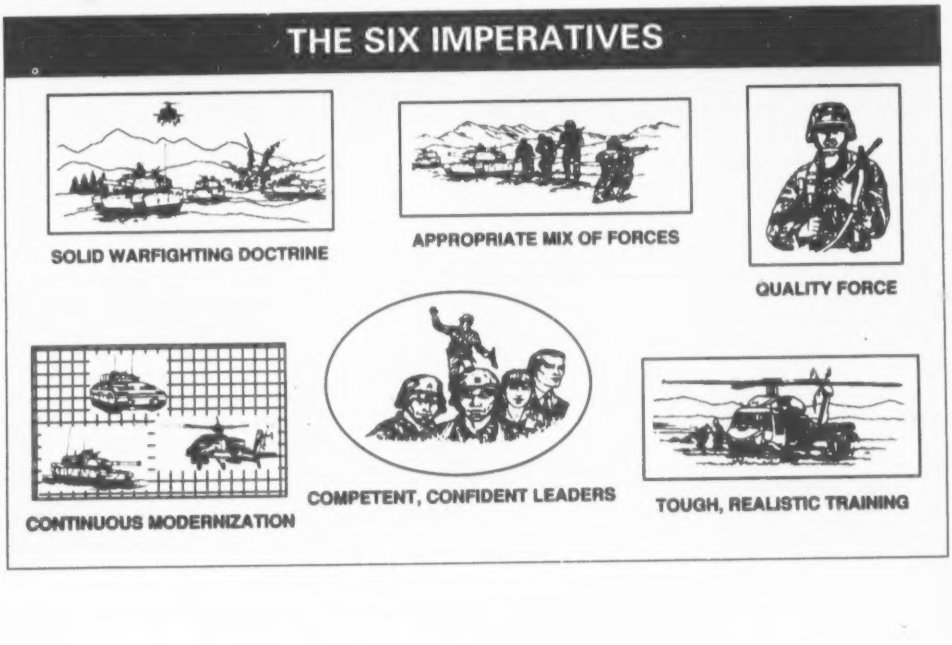
The Army of 1997 will be a perilously small ground force for a nation with the United States' worldwide responsibilities. As we continue to shape the force for the future, we must keep this in mind. It will be essential to minimize the risks inherent in a smaller force by limiting the turbulence created by rapid force reductions and by maintaining the quality and the readiness of the force. The smaller Army of tomorrow must clearly be a better Army in every respect.

The FY92/93 budget represents the continuation of the Army's efforts to reshape the force. As submitted, it is based on the Army's attaining designated FY91 end strength reductions by the end of the fiscal year. It seems clear, however, that these plans must be adjusted after U.S. and coalition objectives in Operation Desert Storm have been achieved. While the outcome of Operation Desert Storm is not in question, its duration and impact on the Army are. Hence, while the Army remains committed to the prudent continuation of our plans for reshaping the force, we will complete the refinement of our plans for the future after the conclusion of Operation Desert Storm.

The Imperatives

The requirement to maintain a full range of capabilities as we reshape the Army necessitates difficult decisions and trade-offs in projecting resource allocations to support the traditional fiscal categories of readiness, sustainment, modernization, and force structure. The Army has been guided in our decisions by adherence to six fundamental imperatives that have shaped the development of today's Army, that have been unambiguously validated during Operations Just Cause and Desert Storm, and that will continue to guide Army resource decisions in the future.

The first of these imperatives, and the overarching requirement for the Army of today and tomorrow, is the quality of the force. Quality is the characteristic that enables the Army to fulfill worldwide strategic roles in spite of a relatively small structure. A quality force demands an environment in which every soldier, civilian, and family can reach the highest levels of personal and professional growth. Quality requires excellence in facilities and services, in training and equipment, and in leadership at all levels. The quality of the force, of course, depends upon quality soldiers. It has been essential in


THE SIX IMPERATIVES

SOLID WARFIGHTING DOCTRINE
APPROPRIATE MIX OF FORCES
QUALITY FORCE
CONTINUOUS MODERNIZATION
COMPETENT, CONFIDENT LEADERS
TOUGH, REALISTIC TRAINING

many of our recent successes, ranging from protecting shipping in the Persian Gulf to assisting in the recovery from natural disasters, and from deploying rapidly for Operations Just Cause and Desert Storm to interdicting traffic in illicit drugs. These experiences have strengthened the conviction that recruiting and retaining talented men and women -- the best the Nation has to offer -- must continue to be the top priority in the Army of the future.

The rise in the quality of the Army's soldiers has been accompanied by a renaissance in our thinking about war. The second imperative focuses on sustaining the momentum in this area by maintaining a forward-looking warfighting doctrine. AirLand Battle, the Army's contemporary doctrine, provides the basic rationale for developing leaders, designing forces, determining materiel needs, and conducting training. This doctrine recognizes the need to integrate the capabilities of U.S. Army units with those of the other services and of our allies to achieve maximum combat power and effectiveness. It establishes the foundation for the Army's disciplined evolution to the future. Projecting ahead, the Army is developing the AirLand Battle-Future concept to update our warfighting doctrine for the early 21st century.

As the doctrine and the security environment have evolved, so too has the composition of Army forces. That evolution will continue. Thus, the third imperative is to maintain the appropriate mix of armored, light, and special operations forces in the Active and Reserve Components. While the present force structure does not meet the current needs of all U.S. commands worldwide, the Army can meet the highest-priority U.S. strategic requirements. As the Army shapes the forces needed for the future, we will take into account the increased U.S. need to rapidly project a tailored, sustained land combat capability worldwide.

In the conduct of tough, realistic training -- the fourth imperative -- the U.S. Army has set a standard for armies everywhere. The investment the Army has made in training over the past decade has produced the readiness for war that is the basis for credible deterrence and victory on the battlefield. The exercises conducted at the Combat Training Centers in California, Germany, and Arkansas are the keystone of the Army's training program to ensure our soldiers, units, and leaders are trained and ready for immediate commitment worldwide in support of our national objectives. Operations Just Cause and Desert Storm stand as evidence of the Army's training achievements. Tough, meaningful, and fulfilling training is also a key element in encouraging the very best soldiers to stay in the ranks. Demanding training, accomplished to high standards, is one of the best investments today's Army can make in the Army of tomorrow.

Another dramatic improvement over the past decade has been modernization, particularly in the combat equipment of Army forces. The fifth imperative is continuous modernization. The Army modernizes for one reason -- to enhance our warfighting capability. This can readily be seen in Operation Desert Storm, where the value of technological advantages in warfare is being demonstrated daily. The Abrams tank, the Bradley fighting vehicle, the Apache helicopter, and the Patriot air defense missile are examples of weapon systems fielded in the 1980s that are currently proving their worth in the crucible of combat. They, and other systems like them, are the products of a continuous process that reflects the Army's doctrine, technological advantages, and overarching commitment to providing our soldiers the best equipment possible. Because resources have always been limited, Army modernization plans ensure that units likely to be the first to fight -- including selected Army Reserve and Army National Guard units -- are modernized first. To develop needed future capabilities on time, the Army will continue to emphasize aggressive research and development in the key areas of operational concepts, unit designs, materiel, and training innovations.

In the final analysis, the capabilities of the Army depend not only on the quality of our soldiers, but also on the competence of our leaders -- our officers, noncommissioned officers and civilians. Thus, the sixth imperative is to continue development of Army leaders. There have been many recent initiatives in this area, to include enhancements in formal education and training, successive operational experiences, continuous self-development opportunities, and enhancements to Reserve Component and civilian leader development programs. Leader development for soldiers and civilians is the most important and lasting contribution to shaping the Army of the future.

Past adherence to these imperatives has positioned today's trained and ready Army to address the challenges of Operation Desert Storm and the challenges of tomorrow. The Army of the 1990s and beyond will continue to be an Army that is shaped by reliance on these proven imperatives.

The Army of the Future

Last year, in shaping an Army to support the requirements of the national military strategy, we concluded that the Army of the mid-1990s must be a smaller, capable force -- forward deployed in sufficient strength to provide a credible deterrent and to demonstrate unambiguous U.S. commitment and resolve to our allies, and clearly able to execute worldwide power projection operations. We also determined that success in the evolving international environment would require an Army with three fundamental qualities: tomorrow's Army must be versatile, deployable, and lethal. These characteristics continue to form the basis of our efforts to reshape the Army.

A Versatile Army

The Army must be able to counter a wide array of potential and unpredictable threats with a relatively small force. The Nation cannot afford to maintain forces uniquely specialized for every conceivable geographical area and type of combat. Therefore, a highly capable, versatile Army able to meet U.S. strategic requirements for rapid power projection and forward presence worldwide will be the most effective solution to worldwide requirements for ground forces. The ability to tailor force packages for specific missions and to project the necessary initial elements of these forces without delays for retraining or mobilization will be critical. Versatility will require the right proportions of Active and Reserve Components, the correct mix of forces (armored, light, and special operations), adequate sustainment stocks, and, above all, high quality in all aspects of the force.

In view of the rapidly changing international environment, the precise time, location, and nature of the threat will always be uncertain. Versatility also demands intensive training and frequent exercises. For the Army of the future, training programs and worldwide deployment exercises will have to demonstrate the ability to tailor force elements, to deploy them within anticipated contingency warning times, and to employ and sustain them as necessary to assure success. Therefore, the Army plans to reconfigure the active forces available for crisis response and other immediate requirements worldwide. These plans envision a contingency force that can call on two fully structured Active Component armored divisions and airborne, air assault, and light divisions, as well as increased Active Component combat support and combat service support. This configuration will enhance the Army's versatility by increasing our ability to rapidly tailor lethal force packages.

The Army must be versatile . . .

Versatility also will be essential in enabling the Army to meet other challenges. The Army will continue to support national efforts to combat drug trafficking and terrorist organizations. Assisting civil authorities in disaster relief and during other unforeseen emergencies will similarly demand adaptive and responsive Army civilians, soldiers, units, and leaders. The same will be true of the Army elements that will carry out security assistance efforts in the future. The focus in this area will be on programs that yield a multiplier effect in host nation armies. Leader development initiatives, training enhancements, joint exercises, and exchange programs -- more than equipment transfers -- frequently shape how friendly armies address their needs and help defend mutual interests. Such activities will be given additional emphasis.

As the Army gets smaller, the quality of our people -- soldiers and civilians -- more than any other characteristic will determine the versatility of the Army. With a volunteer force, the Army must provide incentives to attract and retain the highest-caliber men and women. This means that the Army will have to provide not only adequate compensation but also living and working environments at least as good as those of the society that our soldiers are sworn to defend.

A Deployable Army

The nature of U.S. interests around the world, our coalition-based strategy, and the vagaries of the international environment will require that U.S. forces be globally deployable, often with little or no warning, from the United States or from forward bases. While operational circumstances will determine which deployment mode is best in each case, the Army must have forces prepared to execute either option. Recent events in Panama and the Persian Gulf make it abundantly clear that rapid deployment will become even more important in the future.

Forward-deployed ground forces will continue to be essential too, although their specific numbers will change to reflect contemporary circumstances. The locations of Army bases abroad are likely to be limited to those areas where deterrence and regional stability cannot otherwise be assured. The decrease in the number of forward-deployed forces and bases will require an increase in periodic deployments from the Unites States to maintain U.S. forward presence.

In the future, the United States also will have to maintain an unquestionable ability to conduct an opposed

. . . *deployable* . . .

entry in defense of vital interests anywhere. In many contingencies, a forcible entry will only be possible, or will best be achieved, by simultaneous airborne assault on a number of objectives. Army airborne and ranger forces are uniquely capable of performing this function. They will remain a key element in the Army of the future.

Even the most deployable and combat-ready land force cannot be employed without adequate airlift and sealift. The United States cannot afford to risk the effectiveness and credibility of its overall defense strategy by failing to develop and field adequate worldwide lift assets. Airlift and sealift currently available have proven adequate in deploying forces for Operation Desert Storm. They were, however, severely taxed in the early phases of the operation. U.S. worldwide lift capabilities must be reviewed in the immediate years ahead. A smaller, predominately CONUS-based Army will be even more reliant on worldwide lift capabilities for rapid movement to trouble spots in sufficient strength and with adequate sustainment to deter threats or to quickly terminate conflicts. Of particular importance will be the further development of sufficient fast sealift capacity to support rapid power projection requirements. Finally, the Army will continue to evaluate our requirements for pre-positioned equipment and supplies and to develop our structure, systems, and training programs to enhance our deployability.

A Lethal Army

Lethality is the assured capability to defeat an opponent, winning as quickly as possible to preserve the Army's most valued asset -- the lives of soldiers. Assuring the lethality of Army forces will demand a disciplined, continuous modernization effort. This will mean maintaining the capability to swiftly counter the heavy armored forces of potential adversaries after deploying to austere environments while at the same time fielding forces that can defeat less substantial threats around the world.

In the 1990s and beyond, as in the present, concepts and doctrine must guide the Army's efforts to field combat-ready forces. For the near term, AirLand Battle doctrine, as discussed in Chapter IV, provides this foundation. The Army also will continue to participate in the development of joint and combined doctrine and warfighting concepts.

Based on this doctrine, Army modernization will capitalize on U.S. advantages and strengths -- particularly the qualities of our soldiers, leaders, and technology -- and exploit vulnerabilities and weaknesses in potential adversaries. Future budgets will be constrained, so the Army must assign appropriate priorities and levels of effort to all aspects of modernization if we are to field a competitive force in the future. The Army believes we can make the best use of our resources by investing in our technology base in order to identify promising new technologies while avoiding mortgaging our future for useful but noncritical near-term capabilities. The Army will therefore forgo some near-term modernization while continuing with essential long-term modernization efforts. The greatest challenge in this area lies in selecting those key technologies that will provide the greatest increase in future warfighting capability for each dollar spent. In

. . . *and lethal.*

sum, high-technology research and development is, and will remain, a central feature of the Army's modernization strategy. The Army of the 1990s and beyond will reflect significant increases in battlefield effectiveness as a result of the application of advanced technologies.

The lethality of the Army of the future will be determined, above all else, by the actual combat readiness of the force. Training will continue to be the cornerstone of Army readiness. Combat Training Centers will remain the key to developing the maximum lethality of Army units. These centers not only hone combat skills, they also enable us to apply lessons such as those to be derived from Operation Desert Storm, to assess the validity of the Army's combat doctrine, and to develop officer and noncommissioned officer leaders. The Army will continue to provide tough, realistic training to the highest standards so that soldiers, units, and leaders have the best possible chance of quickly accomplishing their missions and minimizing casualties should they be committed to combat.

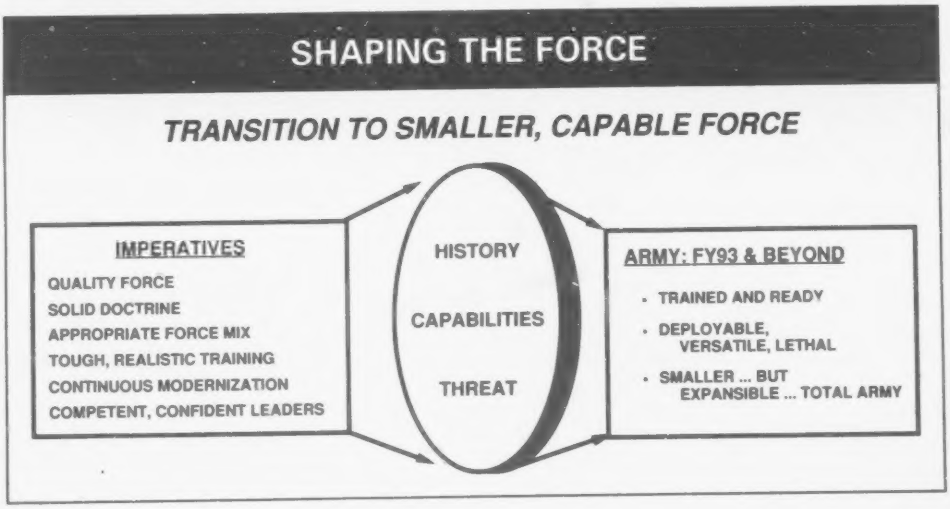
An Expansible Army

A smaller Army must also be expansible to hedge against future uncertainties. The dynamics of the international situation are such that current plans to reduce the size of the Army are not without substantial risk. Some of this risk can be reduced by maintaining quality and readiness in the Total Force and some by retaining the capability to rapidly expand the force. The force generation model discussed in Chapter I is the cornerstone of an expansible Army. It is the means by which the Army structures the force to meet the requirements of the national military strategy.

As we have seen in Operation Desert Storm, smaller U.S. ground forces may often be outnumbered by the ground forces of their opponents. Given the planned size of the future Army and the uncertainties of the international environment, the United States must maintain the capability to regenerate forces to reinforce extended contingency operations, to deal concurrently with a second major contingency, or to confront a resurgent Soviet Union or other unexpected large-scale threats to U.S. security. The Army will therefore continue to rely extensively on the Reserve Components for combat support and combat service support augmentation and to provide reinforcing combat forces. Their timely activation for crises beyond small-scale contingencies will be essential to the successful attainment of U.S. objectives.

The ability to successfully expand Army forces rests on detailed mobilization planning, realistic call-up authority and planning assumptions, periodic testing of the mobilization apparatus, and the foresight and discipline to adequately resource programs and units required on mobilization. The Army must retain the capability to expand the force at any time throughout the transition to a smaller force and in the future.

This vision of the future Army and the unambiguous adherence to the six imperatives have guided the Army through the preparation of the FY92/93 budget and mid-term programs. The FY92/93 budget reflects the continuation of our transition from a Cold War posture primarily oriented on the Soviet threat to a versatile posture for the 1990s and beyond with a more diverse threat orientation. Operation Desert Storm, while validating the Army's characteristics and imperatives, will undoubtedly have a significant impact on how and when the Army continues with the build-down of the force begun last year.



SHAPING THE FORCE

TRANSITION TO SMALLER, CAPABLE FORCE

IMPERATIVES

QUALITY FORCE
SOLID DOCTRINE
APPROPRIATE FORCE MIX
TOUGH, REALISTIC TRAINING
CONTINUOUS MODERNIZATION
COMPETENT, CONFIDENT LEADERS

HISTORY
CAPABILITIES
THREAT

ARMY: FY93 & BEYOND

- TRAINED AND READY
- DEPLOYABLE, VERSATILE, LETHAL
- SMALLER ... BUT EXPANSIBLE ... TOTAL ARMY

III. Quality

A quality force is built on quality people.

The Importance of Quality

Quality is the defining characteristic of a trained and ready Army, and maintaining the quality of the force is the overarching requirement for the Army today and for the future. While the keys to a quality force are attracting and retaining America's best young men and women, quality also requires excellence in facilities and services, in training and equipment, and in leadership at all levels. In short, a quality force demands an environment in which every soldier, civilian, and family can reach the highest levels of personal and professional growth. This chapter discusses the programs designed to maintain a quality force as we shape the Army for the future.

The importance of quality has been clearly demonstrated in combat in Panama during Operation Just Cause and, more recently, in Operation Desert Storm, where our soldiers and their leaders have performed exceptionally well under extremely adverse conditions. These operations validated the importance of quality in force projection operations, where versatility and adaptability to foreign and hostile surroundings are essential to accomplishing assigned missions quickly. These dramatic demonstrations of the capabilities of a professional, trained and ready force confirm the value of quality soldiers and civilians in today's Army.

The competence and flexibility of our quality soldiers and civilians are also important in shaping the Army for the future. The challenges of the international environment, the complexity of new technologies, and the diverse missions that will be assigned to the Army will require men and women of intelligence and dedication who are able to adapt quickly to the mission at hand. Demands placed on soldiers and civilians will surely increase as we strive to maintain a full range of capabilities during our transition to a smaller, capable Total Force.

Consequently, maintaining quality as we reshape the force is the Army's top priority. The Army must maintain the high standards that we have established, both for those who will enter the Army and for those who wish to remain for a career. In addition, the Army is committed to taking care of our soldiers, civilians, and their families during the transition by continuing and refining essential quality of life programs, maintaining a steady flow of promotions and schooling opportunities, and providing adequate career opportunities.

Personnel Support to Operation Desert Storm

Active Army, Army Reserve, and Army National Guard soldiers deployed on short notice in support of Operation Desert Storm. From the start, the Army has worked to ensure that the deployed forces and their families at home receive the best possible support.

Mail is important to every soldier and the family at home. Operation Desert Storm presented new challenges for the Military Postal Service. The great distances, initial shortages of postal personnel, and the rapid arrival of units and individuals taxed the system. The Military Postal System responded and initially processed mail destined for Army units in Saudi Arabia through four gateways (New York, Chicago, Dallas/Fort Worth, and Washington, D.C.). Since November 1990, most Operation Desert Storm mail has been flown out of McGuire Air Force Base, New Jersey, by the Military Airlift Command. There are 11 postal companies deployed to Saudi Arabia

The Army's personnel system supports soldiers deployed for Operation Desert Storm.

to provide general and direct support to soldiers. Mail volume to all services from the end of August to the middle of January 1991 has totalled almost 28 million pounds.

The Army Personnel Information Systems Command undertook a number of initiatives to improve personnel service support to deployed soldiers and civilians. The command provided training in personnel matters to deploying units and allocated computer systems to augment Reserve Component (RC) units. To assist Army forces in Saudi Arabia in providing quality personnel service support at corps level and at echelons above corps, the command also developed a program to support austere corps and theater level personnel organizations. The programs were designed to support strength management, strength accountability, and mail. They feature the rapid integration of commercial off-the-shelf hardware with Army-developed software and coordination assistance for essential communications links. These initiatives provided an enhanced management and planning capability that significantly improved the ability of our tactical forces to conduct combat operations.

Army Legal Assistance has provided extensive services to all soldiers deploying to Operation Desert Storm and their families remaining at home. Predeployment legal assistance includes preparation of wills and powers of attorney, screening soldiers' commercial life insurance policies for military exclusion clauses, and providing information on the Soldiers' and Sailors' Civil Relief Act and the Veterans' Re-employment Rights Law. The Army is making every effort to ensure that soldiers and their families are aware of their rights and legal assistance services.

The Community and Family Support Center, the Army's center for morale, welfare, and recreation services, is providing services to both soldiers and their families. Family support systems for both Active and Reserve Component units are working extremely well. Family Assistance Centers are operating 24 hours per day in locations where large numbers of soldiers have deployed, and family support groups have been formed to keep family members informed. Multilingual briefings, resource guides, and Army Emergency Relief (AER) assistance are being provided. Chaplain, legal, and medical support is tailored to meet the needs of personnel and families remaining at home. Support for the deployed soldiers also is being provided by the private sector. In an inspiring public outpouring, companies and private citizens are providing gifts and services, and organizations and individuals are sending a large volume of letters and morale packages.

To meet the needs of our soldiers for information, the Armed Forces Radio and Television Service (AFRTS) began broadcasting in September 1990 in Saudi Arabia. The service has distributed over 6,000 portable radios to units in Saudi Arabia. *Stars and Stripes* newspaper is distributing a special edition to soldiers in Saudi Arabia. The Army and Air Force Exchange System (AAFES) is supporting all services in Saudi Arabia with exchanges, catalogue services, 16mm film, and video services. Products are trucked to forward units where exchanges are not available. Rest and relaxation programs are being implemented to complement the tactical situation. These range from rotation to a support facility for hot showers, recreation, and laundry services to a 3- to 4-day break aboard a leased cruise ship. Morale support activities will continue to be refined as the situation in the theater evolves.

Transition Assistance

Today, the Army has the best quality soldiers and civilians in our history. Their professionalism, determination, and dedication have played a large part in fostering the tremendous changes sweeping Eastern Europe and the Soviet Union. Unfortunately, some of these same people will be separated as the Army reshapes in response to these developments.

As part of the core DOD transition information program, an Army Career and Alumni Program (ACAP) has been developed to provide a comprehensive system to assist personnel leaving the Army. The program is targeted at all personnel who are leaving the Army -- soldiers, civilians, and family members.

The Army Career and Alumni Program will set up ACAP Transition Assistance Offices (TAO) and contracted Job Assistance Centers (JAC) at selected installations. At each installation, the Transition Assistance Office will provide total quality management to the transition process. In addition to advising the commander on transition matters, it will serve as the first stop in the transition process, provide a personalized transition plan, and integrate transition services.

The Job Assistance Centers will provide standardized job search skills training, personalized assistance and counseling, workshops and seminars, one-stop job hunting activities, and referral to external agencies.

ACAP will be capable of serving approximately 180,000 to 220,000 soldiers, civilians, and family members each year, with a surge capability to accommodate those separated involuntarily. Seven sites are currently evaluating pilot programs. ACAP will be fully operational in 1991, with a total of 67 TAOs and 57 JACs at Army locations worldwide.

The Army can expect a number of benefits, as well as cost offsets, as a result of successfully executing the Army Career and Alumni Program. ACAP helps those who have served well. It also engenders goodwill for the institution as individuals leave the service and reenter civilian life and reduces unemployment compensation costs to the Army.

Recruiting and Retention

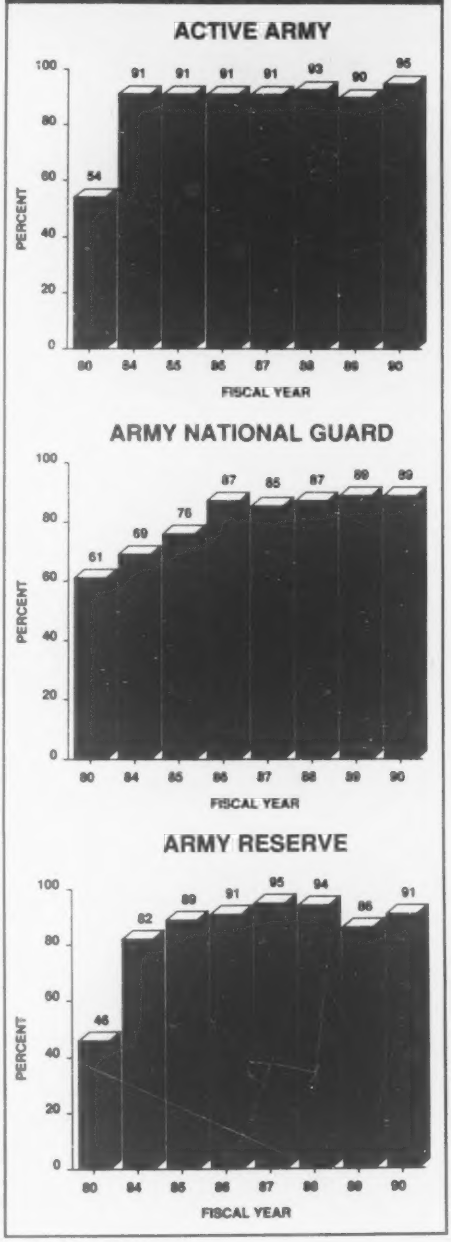
The ability to attract and retain the best young Americans remains a critical element in sustaining the quality of the Total Force. Recruiting and retaining quality soldiers and civilians in a highly volatile and competitive marketplace requires a complex approach that combines the proper allocation of adequate recruitment and retention resources, the management of a trained recruiting organization, and the maintenance of the recruited force. Adequate pay and benefits, realistic expectations for training and advancement, and quality of life programs are essential to maintaining a quality force. The choice to serve in the Army must continue to be a viable career option if we are to attract and retain the soldiers and civilians the Army will require for the future.

Recruiting Initiatives

Education incentives remain the Army's most powerful recruiting tool. Money for college remains the most important incentive in enlisting our high-quality soldiers. This is reinforced by the fact that over 40 percent of enlistees say they either would not have enlisted or would have chosen another service if there was no Army College Fund (AFC). As college costs continue to rise, education incentives will take on a more important role.

The Army College Fund along with the Montgomery GI Bill benefits and enlistment bonuses for qualified applicants are integral components of a structured Army recruiting offer. The ACF, available only to those enlistees who score in the top three Armed Forces Qualification Test (AFQT) categories, possess high school diplomas, and enlist in certain critical combat arms skills, has been a very useful recruiting tool. The ACF Plus, currently being tested

TOTAL ARMY ACCESSIONS
HIGH SCHOOL GRADUATES



in selected areas, extends the ACF to 2-year enlistments in non-combat arms positions as well. This offer also requires a 2-year term of service in a reserve unit. Enlistment bonuses also are offered to attract quality enlistments for 4-year or greater terms.

Recruiting results indicate that these incentives continue to be extremely successful in building a quality force. In FY90, 95 percent of the nonprior-service Active Army enlistees were high school graduates, with 66.9 percent scoring in the top three AFQT categories. Only 1.8 percent scored in the lowest allowable AFQT category. Ninety-two percent of those eligible enrolled in the Montgomery GI Bill program. Nearly a third of these enlistees selected skills that qualified for the Army College Fund. The ACF Plus demonstrated similar results for non-combat arms skills. Its requirement for continued service in the reserves has fostered quality for that component as well.

As we conclude Operation Desert Storm, we must be provided adequate resources for both the active and reserve recruiting missions. We must continue a first-rate Army advertising program and maintain or increase awareness of Army recruiting initiatives. We must sustain sound educational and bonus incentives as well. These initiatives, coupled with a professional recruiting organization, will ensure that today's Army and the Army of the future are manned with quality personnel. The sufficiency of our advertising funding is currently a major area of concern for the Army (see below).

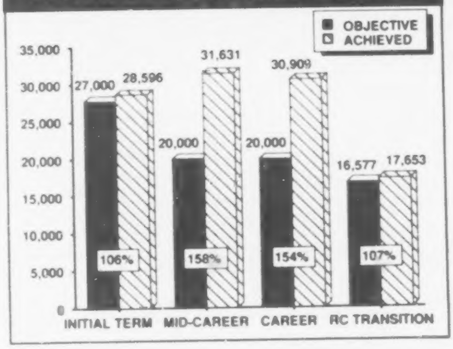
Retention and Reserve Component Transition

Despite planned reductions in the size of the active Army, continued decreases in the number of young people in the population and personnel turbulence caused by the transition to a smaller Army will present major difficulties in manning the Total Army. The retention of quality soldiers, particularly soldiers in their first term, will continue to be a critical contributor to personnel readiness. Of equal importance is the need to retain the skills and experience of soldiers leaving the active force by having them affiliate with RC units in either the Army National Guard (ARNG) or the United States Army Reserve (USAR).

As we transition to a substantially smaller active Army, our focus will shift from retention of the maximum number of quality soldiers to the selective retention of only our top performers. We are in the process of revising our Retention Control Points, which govern how long enlisted soldiers may remain in the service in their current rank. Retention Control Points are used to retain in the service only those soldiers who have progressed with their peers. Reenlistment incentives still are needed to encourage quality soldiers to remain in the Army, but we have reduced the number of such incentive programs from 14 to 8, and we are considering eliminating other programs in FY91. A qualitative retention system will allow us the flexibility to use the reenlistment process as a means of improving the quality of our smaller Total Force.

As soldiers leave the Active Army, our goal is to place about one-third of the eligible specialists, corporals, and sergeants into Reserve Component units based on the quality of the soldiers and their specialty skill qualifications. Counseling programs and automated support systems are designed to place soldiers leaving the AC into RC unit vacancies for which they are qualified or into skill training on reporting to their reserve unit.

FY 90 AC RETENTION/RC TRANSITION



The ARNG seeks to recruit and maintain a force composed of approximately 50 percent nonprior-service and 50 percent prior-service soldiers. The ARNG needs nonprior service accessions to fill the large number of specialist and private first class positions. We recruit the high-quality members of the local community to fill these positions. Prior-service soldiers complement these soldiers by sharing their experience and job knowledge. As most prior-service soldiers are specialists, corporals, sergeants, and staff sergeants who compete for limited position vacancies with nonprior-service Guardsmen seeking promotion opportunity, the ARNG seeks to balance prior-service accessions with the need to provide already serving Guardsmen upward mobility.

During FY90, the Army exceeded active Army retention objectives in all categories as well as the Reserve Component transition objective.

Personnel Management

Personnel management entails matching the skills, experience, and rank of our quality individuals with unit needs to ensure Army-wide personnel readiness and adequate career progression. Operations Just Cause and Desert Storm demonstrate the Army's continuing requirement to deploy forces on short notice. Maintaining required levels of unit readiness throughout the Army as we execute Operation Desert Storm and shape the force for the future will be a significant personnel challenge for the Army.

Impact of Operation Desert Storm

Operation Desert Storm has introduced some extraordinary personnel management requirements that have caused the Army to increase temporarily our active duty strength. For example, well over 100,000 Reserve Component soldiers were on active duty by the end of January 1991. Further, the Active Component is adding 3,000 to 4,000 soldiers per month to the total end strength through "stop loss" programs. Operation Desert Storm will significantly delay the personnel drawdown ramp. The Army will most certainly not meet our stated FY91 end strength objective. Our end strength will include a number of officers in excess of authorizations and Defense Officer Personnel Management Act limitations. The ultimate delay will depend on the length and magnitude of the continued Army requirements for Operation Desert Storm. When the operation is concluded, it is imperative that the Army be permitted to efficiently and prudently return to the managed reshaping of the Total Force.

Noncommissioned Officer (NCO) Requirements

Noncommissioned officers are the backbone of the Army and the foundation of the Army's small-unit leadership; maintaining the quality of this component of the force is essential. The Army will meet our NCO needs in FY92 for the first time since 1987, eliminating a 9,500 shortfall in NCOs in FY91. This improvement will be due in part to the reduction in Army force structure, as the Army's NCO strength will decline from 276,372 in FY90 to 264,727 in FY92. With a smaller NCO corps, experienced and skilled NCOs will become increasingly critical, especially as a means to offset potential degradations in readiness resulting from personnel turbulence as we reduce the Army.

The Army seeks to retain experienced, skilled NCOs.

Congress and the Secretary of Defense have authorized the Army to maintain NCO strength during the reshaping of the Army. This authority will enable the Army to sustain promotion flow, maintain personnel readiness within units, minimize the number of NCOs involuntarily separated, and retain the quality NCOs essential to our professional, volunteer force.

Full-Time Support (FTS) Program

The Full-Time Support Program is crucial to the preparation of RC units to accomplish successfully their demanding wartime missions. The full-time support force consists primarily of Active Guard/Reserve personnel and military technicians. It provides assistance in readiness, training, force modernization, and sustainment functions essential to maintaining required levels of unit readiness and maximizing training time for drilling Guardsmen and Reservists.

We have identified FTS requirements equal to approximately 17.8 percent of the RC drilling end strength. Because of funding limitations, FTS personnel currently make up only 12.2 percent and 9.9 percent of the ARNG and USAR, respectively. Sustainment of FTS and increased manning to requirement levels are essential for the Reserve Components to prepare effectively for additional mission responsibilities, to increase readiness, and to continue modernization.

RC Medical Personnel Programs

The overall readiness of USAR medical units continues to improve. In addition, during FY90 the number of units increased from 320 to 366. Existing programs and strategies that impact positively on USAR medical readiness include:

The National Army Medical Department Augmentation Detachment offers flexible training programs in critical specialties for physicians and nurses who are unable to train on a regular basis with a USAR medical unit due to geographical or time constraints. At the end of FY90, there were 414 physicians assigned to this program with 134 pending assignment, and 462 nurses assigned with 237 pending assignment.

- The new Specialized Training Assistance Program provides a monthly stipend for members training in critically short wartime skills in return for a commitment to the Selected Reserve or the Individual Ready Reserve. To date, 247 Army Nurse Corps and 550 Medical Corps officers are participating in the program.

- The Health Professional Loan Repayment Program provides for repayment of student loans for physicians and nurses with critical specialties in return for service in the Selected Reserve. A total of 837 individuals have participated in this program.

- The Health Professions Recruitment Bonus Test was implemented in August 1989 to determine the effect of recruitment bonuses on the accession of Selected Reserve physicians and nurses. Bonuses are targeted on critically short wartime specialties in carefully selected geographic areas. This highly successful test program has 938 participants. A permanent program is being developed.

The recruitment, training, and retention of enlisted clinical specialists continues to be a major concern for the Army. At present there are six training programs for these specialists: initial entry training at the Academy of Health Sciences; civilian contract training by local civilian institutions; an educational service agreement with St. Phillips College in San Antonio, Texas; exportable training programs through the Academy of Health Sciences and U.S. Army Reserve Forces schools; the Specialized Training for Army Readiness (STAR) program; and the Army Civilian Acquired Skills Programs.

The STAR program is designed specifically to recruit clinical specialists and increase their skill qualification. The STAR program uses accredited civilian community colleges and technical schools throughout the country to provide advanced individual training rather than having soldiers attend traditional Army schools. This program has proven to be an exceptional recruiting tool. There were 56 soldiers who enlisted in the program for FY89 and 297 in FY90.

Women in the Army

Women fill essential positions in today's Army.

The number of women officers, NCOs, and enlisted personnel continues to increase due to the varied opportunities and assignments offered in today's Army. Women are provided full and equal opportunity to pursue appropriate careers and are assigned in all skills and positions except those closed under the Army's Direct Combat Exclusion Policy. Presently 86 percent of the enlisted military occupational specialties, 91 percent of the warrant officer specialties, and 96 percent of the commissioned officer specialties are open to women. Women represent 11.4 percent of the Active Component (AC) (12,500 officers and 71,000 enlisted), 18.2 percent of the USAR (22,000 officers and 88,100 enlisted), and 7.1 percent of the ARNG (3,707 officers and 28,000 enlisted).

Individual Ready Reserve (IRR) Screening Program

Federal law requires continuous screening of the IRR. The Army's IRR screening program conducts individual soldier screenings at mobilization stations, USAR centers, and U.S. Army recruiting stations during the soldier's birth month. During FY90, 37,132 IRR completed screening. Of those screened, 2,396 (6.4 percent) transferred to troop units, and 29 were ordered to active duty. This transfer of soldiers to troop units has had a very positive effect in increasing the personnel fill of the units concerned. The Army's method of screening the IRR, developed over the last 3 years, continues to be an efficient method to ensure maximum participation on mobilization and to maintain adequate and current personnel records.

Current Concerns

Four personnel management issues are of particular concern to the Army: initiatives to improve and manage the officer corps; junior officer accession and development; the ability to recruit quality soldiers in a highly competitive marketplace; and maintenance of our long-standing policy that single parents and dual military couples remain fully deployable and available for assignment worldwide.

In a period in which the Army must shape a smaller force, we need flexibility to manage the reduction if we are to shape a quality officer corps for the future. While the Defense Officer Personnel Management Act has improved management of our active officers, it requires some changes to adapt it to current requirements. At the same time, the Army needs congressional action to facilitate our management of warrant officers and reserve officers. These issues are discussed in detail in Chapter VIII.

A second area concerns matters affecting junior officer accessions and the United States Military Academy (USMA). First, the active duty service obligation (ADSO) for service academy graduates was increased from 5 to 6 years with the passage of the FY90 National Defense Authorization Act. This will apply to all USMA entrants after December 31, 1991.

This increase will adversely impact the Army's ability to attract quality applicants, especially minorities and women, for attendance at the USMA. As the ADSO does not even begin until 4 years after the applicants must decide to apply to USMA, we believe many applicants will view the ADSO as a greater commitment than they are willing to make. They are young people making a 10-year commitment. Furthermore, the number of high school graduates is declining, creating more competition between the private and public sectors for young people with leader potential.

Second, the FY91 Authorization Act mandates a reduction in the size of the Corps of Cadets. The language suggests a phased cutback in the number of new cadets appointed, beginning in the summer of 1991. It specifies that no more than 1,000 cadets per year may be appointed by 1995. With annual admissions limited to 1,000, normal attrition will reduce the size of the Corps 30 percent below its current authorized level. This constitutes a reduction of 1,300 cadets. The Army opposes a cut of this magnitude. The Secretary of Defense directed, and the Army supports, a Corps size of 4,000 cadets by 1995. (This is a 10 percent reduction from current authorizations.) This reduction will enable USMA to operate at near capacity (which is efficient), and it sustains the proportion of high-quality lieutenants that USMA contributes to annual accessions, especially minorities and women.

Third, the FY91 National Defense Authorization Act also requested a report on the desirability of commissioning all 2nd lieutenants in the reserves, regardless of their active duty obligation. The Army strongly opposes such a change in procedure. It would put at risk the historic commitment between the Army and our most promising new accessions -- ROTC Distinguished Military Graduates and USMA graduates. Regular Army accessions traditionally have been the nucleus of the career force. In the impending era of smaller forces, the Army must preserve our ability to attract and retain quality volunteers for career service as officers in the Regular Army.

Finally, the Army strongly supports legislation to allow USMA the authority to confer a Master of Arts (MA) degree in Leader Development for selected Army officers who serve as company tactical officers at USMA. Congressional authorization to confer the MA degree on program graduates will significantly enhance USMA's ability to attract quality officers for this academically rigorous, 48 credit hour program. This program will significantly reduce civil schooling and permanent change of station costs, while concurrently allowing USMA to advance its extensive field work in the area of leader development and more effectively accomplish its purpose and mission.

A third area of concern is our continuing ability to recruit quality young people. Although advertising is being funded only at FY84 levels, the Army is striving to improve the quality of accessions. Additional resource cuts in the face of already tough budgetary reductions, compounded by an increasingly difficult recruiting environment, will have a profound impact on the quality of the force the Army is able to build over the next few years. A loss of visibility in the marketplace now will be even more costly to regain in the future. Advertising and advertising resources must remain constant to maintain public awareness for both applicants and those who influence applicants. In light of steadily rising media and production costs, continued funding at FY84 levels means the Army will get significantly less exposure for our money and fewer marketing opportunities.

Since advertising supports more than just Regular Army enlistments, reduced dollars mean less advertising support for Army specialized programs, which promote officer accessions via the Reserve Officer Training Corps, USMA, and Officer Candidate School. Less advertising support also adversely impacts on nursing, physician, lawyer, chaplain, Special Forces, warrant officer, and reenlistment programs.

According to two RAND Corporation studies released last year, empirical results show that advertising in a given month has a significant and immediate effect on the number of quality enlistments. One of the studies suggests that Army advertising is a very effective means of increasing the flow of quality recruits into the service.

A final area of concern is the maintenance of the Army's policy on single parents and dual military couples. Proposals to change this policy to prevent single parents or dual military couples with children from serving in the Operation Desert Storm theater would seriously weaken our combat capability by removing key personnel from our deployed units and by undermining unit cohesion and esprit de corps. It also would break faith with our single parents and dual military couples and with their fellow soldiers who depend on them daily.

For years, single parents and dual military couples have understood the duty and obligations they have voluntarily assumed. They are well aware that these obligations may place them in harm's way and that risk is inherent in military service. In spite of that potential danger, they have served well and honorably and have demonstrated a willingness and ability to meet both their obligations as soldiers and as parents. Any legislation that attempts to limit their ability to serve would not be in the best interests of the Army, the individual soldiers affected, or the units in which they serve.

The Army is, therefore, opposed to any change in policy during Operation Desert Storm because of the negative consequences that would result.

The Civilian Work Force

Nearly one-fourth of the Army is composed of highly qualified and motivated Department of Army civilians, whose efforts contribute significantly to readiness and mission accomplishment. In the future, civilians may make up an even greater percentage of the Army's work force, comprising the majority of the positions in acquisition management, research and development, base operations, and logistics. The Army is committed to continuing the investment we have made in building a trained and ready civilian force.

The Future for the Army Civilian

Civilians are an integral part of the Total Force, and the planned build-down of the Army to a smaller, capable force will affect directly the number of civilians the Army employs. The Army estimates that significant civilian reductions, both in CONUS and overseas, will be required during the next 5 years as a result of reshaping the force; implementation of management efficiencies, such as the Defense Management Review and Army Management Review directives; and base realignments and closures.

Cuts of the size anticipated will require reduction-in-force procedures that will involuntarily separate some civilian employees. Less severe actions, such as curtailment of non-mission essential training, travel, and overtime; full or partial freezes on hiring; and release of temporary employees will be used prior to taking actions that adversely affect the pay or jobs of permanent civilian employees. The reduction actions will reflect great care, sensitivity, and compassion for each affected employee.

Systems are in place and being developed to assist those employees who will be affected by the Army's reductions. Long-standing programs, such as the DOD Priority Placement Program, will place many of our people who face separation into other jobs. The new Army Career and Alumni Program will assist departing civilians and their family members to move into new careers. Intensive counseling will make employees aware of their options and, if they must be released, assist them in seeking new employment. The Army can now use funds from the Operations and Maintenance, Army, appropriation to provide transition assistance by contractor services in locations not serviced by ACAP assistance centers.

Concurrent with reduction actions, the Army must continue programs to recruit and retain a quality civilian force with the needed skills to support the requirements of the evolving Army. The smaller civilian force must have the right mix of skills to meet Army requirements, such as those necessitated by Operation Desert Storm. The Army will continue to use all possible means to attract quality candidates. The Army has implemented the Intern Intake Survey that will produce a profile of past and current career interns based on a variety of quality measures. This survey will use the types of information (e.g., educational and cognitive test score data) that have been used successfully by the military to track the quality of the force and will link those measures to performance, progression, and retention data. Implementation of the survey began in May 1990 and will continue each year. The Intern Intake Survey will produce data over time that will help us adjust recruitment practices to ensure we hire quality people.

Civilian Pay Reform

General Schedule (GS) nationwide pay system reform is a key to the Army's ability to recruit and retain quality civilian employees in increasingly scarce skill occupations. The GS pay rates average 30 percent below the private sector. The situation is particularly crucial for medical facilities that may need to employ additional

Civilians provide technical and managerial skills to the Army.

civilians to fill the positions of military members diverted to support deployments, such as Operation Desert Storm. In critical occupations, such as nuclear medical technicians, nurses, pharmacists, and doctors, the FY89 voluntary loss rates among service members ranged from 11 to 18 percent. The Federal Employees Pay Comparability Act of 1990 provides for the establishment of a market-sensitive GS pay system that supports the recruitment, retention, and mobility of quality employees. The Army is working with DOD and the Office of Personnel Management to implement the new system.

Managing Civilians to Budget (MCB)

MCB is a major Army initiative in support of civilian personnel modernization. Under MCB, managers have the authority to build their civilian organizational structure and redistribute resources to maximize mission accomplishment. They operate under a budget limit rather than traditional personnel controls, such as end strength, average grade, and high-grade ceilings for civilian positions.

MCB increases financial flexibility and strengthens the accountability of supervisors for the cost of their organizational structure and personnel decisions. MCB also builds the fiscal accountability necessary to manage the proposed changes to the civilian personnel system, such as market-sensitive pay and simplified classification.

After three years of test and evaluation, the Army has announced MCB implementation for CONUS activities in FY91, with overseas activities to follow in FY92. As the Army moves into a future of smaller budgets and fewer people, the increased flexibility of MCB will be of even greater importance.

Integration of the Civilian Work Force in the Army Personnel Proponent System

The quality of the total civilian work force is being enhanced through the Army Personnel Proponent System. Under the system, a single agency is identified to monitor every civilian occupation. The agency sets the career pattern and oversees policy for progression within the occupation from entry until separation. Proponents are the focal point for information; for example, proponents can provide data on critical skills needed to support mobilization and deployment.

A pilot program was conducted in FY90 with 14 proponents representing 29 groups of related occupations, known as career fields. During the pilot, proponents demonstrated the benefits of long-range management by improving force structure, training, and professionalism within their assigned career fields.

With the reshaping of the Army and the conversion of key sustaining base positions to civilian slots, life-cycle personnel management of the civilian work force becomes even more essential. Furthermore, savings can be realized from the program through standardization, retention of quality employees, and better management of functions common to the military and civilian work forces.

Army-wide implementation will begin in FY91, and objectives for FY92/93 include establishment of Army Civilian Training, Education, and Development System (ACTEDS) professional development requirements for the non-career program work force (See Chapter VIII).

Quality of Life

The Army quality of life effort is a collection of policies, programs, and actions to improve the living and duty environments of the Total Army family. The ultimate goal of our efforts is to foster individual readiness and commitment. The crisis in Saudi Arabia, the force drawdown, and base realignment and closure actions have underscored the pivotal role quality of life programs play in maintaining readiness. Congressional support is critical if we are to provide sufficient funds for our quality of life programs to enable the Army to take adequate care of our soldiers, civilians, and families.

Army Communities of Excellence (ACOE)

The ACOE program strives to improve the quality of community services through a concept of customer service, commitment to courtesy, and promptness in delivery. It promotes activities and self-help projects designed to keep well-furnished and well-maintained facilities that provide an atmosphere where people want to do their best. The program uses evaluations and awards to

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The Army Communities of Excellence program stresses prompt, courteous customer service.

spur performance. Major commands and installation commanders establish their own evaluation process, and the annual Chief of Staff of the Army awards recognize outstanding Army communities. Through education and publicity, ACOE also rapidly spreads good ideas for promoting excellence throughout the Army.

By fostering overall community excellence, ACOE makes a direct contribution to Army readiness far beyond the resources that the program expends. Moreover, ACOE fosters pride in the profession and the community that will sustain each soldier, civilian, and family member through the most demanding of times.

With ringing clarity, Operation Desert Storm demonstrates the timeliness and worth of ACOE. In the midst of the largest deployment of Army forces in 20 years, communities are providing top-quality services for the families left behind. Soldiers deploy with the confidence that their families are being cared for and that their needs are being met. Moreover, our communities have welcomed mobilized soldiers and their families from the Reserve Components. ACOE ensures that these members of the Total Army are assisted with efficient, simple administrative procedures.

The ACOE program is neither burdensome nor costly; it works because it taps the boundless reservoir of energy, enthusiasm, and ingenuity of all community members. As we shape the Army to meet our strategic responsibilities in the years ahead, the ACOE program will assume greater significance. ACOE makes an unambiguous, cost-effective contribution to promoting and sustaining a quality, ready force. Without question, quality of life is a readiness issue.

Facilities

The Army's six fundamental imperatives are supported by the foundation of Army facilities infrastructure. Quality facilities attract, motivate, and help retain good people. Dilapidated and inadequate facilities diminish productivity, adversely affect morale, and ultimately undermine our warfighting readiness.

The Army's facilities strategy commits resources to maximize the use of current facilities, meet regulatory and environmental guidance, and concentrate revitalization resources on a reduced facilities base. Reducing the facilities base as our force structure decreases is critical to having the required revitalization resources available to maintain the remaining facilities for our force. The successful execution of this strategy requires the Army to fully fund the Annual Recurring Requirements of the reduced facilities base. Since 1987, the Army has not been able to do this. This gap between requirements and resources has caused the Backlog of Maintenance and Repair (BMAR) to increase dramatically. BMAR is a leading indicator of facilities deterioration and the increasing maintenance and repair costs of the Army's infrastructure. To reverse this trend, our goal is to program a prudent level of funding for facilities revitalization and to practice fiscal and facilities discipline.

The Army's revitalization program covers the repair and maintenance of our infrastructure.

Operation, maintenance, and repair of the Army's infrastructure also is an integral part of the Army's revitalization strategy. Major maintenance and repair projects, such as building renovations; interior electrical, heating, ventilation, and plumbing upgrades; road repairs; and exterior utilities improvements are critical parts of real property maintenance activities (RPMA). These activities contribute to revitalization by extending the life of Army facilities. These projects cannot be considered discretionary. With the overall Army revitalization cycle at 150+ years for FY92/93, they are critically important. Delay simply means further deterioration and higher ultimate costs.

The Military Construction Army (MCA) budget provides a foundation for maintaining our remaining installations. MCA funds construction that replaces uneconomically reparable World War II era motor pools, manpower-intensive warehouses, and obsolete scientific laboratories. The near-term funding levels of this program are relatively high as a result of construction projects for disposal and depot support facilities for the chemical demilitarization program. The Army recognizes that we will have a significantly smaller forward-deployed force and is requesting funds only to meet absolutely essential life-safety or quality-of-life requirements at overseas installations scheduled to remain open. The MCA program coupled with facilities discipline provides the foundation necessary to achieve and maintain facilities excellence.

The objective of the Army Family Housing program is to provide suitable housing for all eligible Army families. Sources of suitable housing include private rentals and sales, third-party investments, and government-owned assets. An integral part of the family housing program is the need to fund essential operations and maintenance to detect and correct health and safety deficiencies and to keep individual units open for assignment. Major maintenance and repair, improvements, replacements, and new construction projects are funded to revitalize the existing inventory to contemporary standards. Unfortunately, Army housing revitalization is severely underfunded, to a degree that existing housing units are on about a 100-year revitalization cycle. As a result, the Army will plan for a systematic closure of a portion of the family housing inventory in addition to those programmed as a result of base closure and realignment.

To help alleviate the housing shortage, Army family housing is committed to a substantial leasing program of over 50,000 leases. The Army also is pursuing the Section 802 program to provide housing in high-cost areas. Under this program a developer builds family housing on government-owned land and leases directly to the soldiers at an affordable rate. The first project developed under this program was advertised in Hawaii in the fall of 1990, with the project award expected in June 1991.

In programming our resources for the future, the Army attempted but was unsuccessful in maintaining FY90 funding levels in both our CONUS MCA and real property maintenance programs. At these barely adequate levels of funding, the Army must substantially reduce the supporting facilities base by aggressively identifying and disposing of unneeded obsolete facilities in consonance with force structure decisions. Retaining excellent facilities helps to achieve the Army's first imperative -- attracting and retaining a quality force.

Medical and Dental Care

In the face of a changing global and domestic environment, improving access to quality and cost-effective health care continues to be a major goal within the Army's medical system. The Army intends to preserve ongoing Army and DOD initiatives aimed at increasing access, staffing, and services and controlling the costs of medical and dental care.

The Army Gateway to Care Program will integrate successful components of existing managed care initiatives and expand use of civilian medical community resources to broaden the access and range of services available to service members and their families. Beneficiaries will enroll voluntarily for assignment to designated primary care clinics for coordination of their total health care needs. The medical facility commander will determine what services are best provided in military facilities and what can be done most efficiently in civilian facilities. These decisions will be based on local demographics, the needs of the community, and the available services in the local civilian medical community. When referral for civilian care becomes necessary, it will be provided at a reduced out-of-pocket cost to Gateway members through the medical treatment facility's civilian preferred provider network. The resulting comprehensive health care system will yield more economical health care in a stable, business-like environment.

Comprehensive health care also will remain a focus for Army personnel and families serving overseas. Programs like the alternate use of Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) Funds Test will continue to seek cost-effective ways of meeting the needs of beneficiaries away from home. The European After-Hours Test Project, which provides acute care outpatient services from local German medical facilities, is being continued and is proving to be immensely successful and popular among commanders and beneficiaries.

Another goal of the Army is to reduce occupational illness and injury. Improvements to Army occupational health services during the materiel acquisition process, such as health hazard assessments, will help protect our soldiers and civilians from many potential hazards, and work site evaluations at high-risk activities will improve working conditions and reduce costs.

The Gateway to Care Program will provide medical services more efficiently.

The Army's Dental Care System, by providing a comprehensive dental care program, is another tool for maintaining quality of life. Space-available care is being provided for all family members at uniformed services clinics as authorized by Congress in 1985. In addition to space-available care, the Federal Government administers a voluntary dependent dental insurance plan for active duty military family members who reside in the fifty states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam.

Morale, Welfare, and Recreation (MWR)

MWR historically has provided programs and activities for soldier and family enjoyment similar to those available in civilian communities. The turbulence generated by the transition to a smaller, more CONUS-based Army and the recent employment of Army forces on Operation Desert Storm will cause additional stress on soldiers and families. Well-rounded MWR programs offer an antidote to that stress and will continue to be an essential element of Army quality of life programs.

Our challenge is to provide the highest-quality services in the most economical, businesslike manner possible. Commanders must retain maximum flexibility to meet the changing needs of their soldiers as force restructuring occurs. They have at their disposal appropriated funds (APF) for use as authorized by Congress and nonappropriated funds (NAF) generated from several sources, but most predominantly by installation MWR activities. Commanders have the flexibility to use appropriated funds to reimburse nonappropriated fund activities for services provided on behalf of the government. This financial tool allows commanders to mix funding support as priorities change. Congress has extended the authority to use the reimbursement procedure through September 1991. It is critical that commanders retain the ability to reimburse NAF with appropriated funds for the duration of the restructuring of the Army. The flexibility that results from the authority to reimburse optimizes the businesslike operation of MWR programs.

MWR program managers have risen to the challenge posed by Operation Desert Storm by immediately providing recreation equipment, supplies, and planning for entertainment and special leave programs for deployed forces. Installations have restructured programs and operating hours to cope with reduced requirements resulting from the deployment and to focus on the needs of remaining family members.

Family Support

The necessity for Army Community Service (ACS) to maintain active family support services has been demonstrated by recent activities connected with the operations in Panama and Saudi Arabia. Sufficient staffing to expand to a 24-hour family assistance center operation has proven critical in supporting Active and Reserve Component soldiers and families during times of national emergency. It also will prove critical as we reshape the force.

Relocation assistance initiatives are a priority among military families. They will become especially important with the increased personnel turbulence that will accompany the reshaping of the force. Pre-move counseling and assistance, the new Relocation Automated Information System, and emphasis on trained sponsors enable soldiers and families to adapt successfully to new situations. Well-adjusted families have a direct impact on readiness and retention.

Youth services provide developmental and recreational programs for the Army's 400,000 children and youth. These programs help our youth develop coping abilities, teach skills that promote confidence, and encourage volunteers and involvement in the community. Youth services enhance the quality of life for our young people and families and offset the impact of frequent relocation, family separation, loss of extended family, and the need for continual readjustment. Youth services promote wholesomeness and well-being for Army children and decrease the incidence of troubled youth. Through the benefits they offer to Army families, youth services are instrumental in retaining experienced soldiers and contribute to a quality force.

Child development services provide center-based,

WELCOME HOME

In 1990, Army families welcomed soldiers home from Operation Just Cause . . .

home-based, and alternative child care programs to soldiers. In FY90, care was provided to more than 157,000 children in 296 child development centers and 7,296 family child care homes. The Military Child Care Act of 1989 provided for enhanced training, better wages, and increased appropriated fund support, which have improved the Army child development program. Alternative child care programs, such as child care resource and referral and homes off post that offer child care spaces for military and Department of Army civilians, increase available care.

The National Guard has established a Family Program to contribute to readiness and retention in the Army National Guard. Families enter into a partnership with the ARNG and make a direct contribution to the mission. The Guard Family Program provides the infrastructure to support the partnership. A full-time Family Program Coordinator in each state works directly with commanders and a military point of contact in each unit. Family member volunteers are trained in key roles and form the nucleus for unit family support groups.

The U.S. Army Reserve Family Program structure is very similar to that of the active Army. Each of the five continental United States Armies has full-time family support coordinators who, in turn, provide guidance and support to the 25 full-time and 19 part-time coordinators running programs through the Army Reserve Commands and major U.S. Army Commands. These family support coordinators work with unit family support groups, which function in much the same way as active groups.

. . . and bid farewell to those deploying for Operation Desert Storm.

Religious Support

The Army chaplaincy moves with soldiers wherever they go. Chaplains parachuted into Panama on Operation Just Cause. Chaplains and chaplain assistants share the hardships of Operation Desert Storm while providing religious and spiritual support to those who face the hardships, dangers, and possible ultimate sacrifice. They help soldiers build spiritual strength, for the soldier who has a strong spiritual framework gains immeasurably.

Chaplain-sponsored worship opportunities, religious education, family support, and pastoral care provide religious community support and nurture to family members who stay behind when soldiers deploy. These ministries assist in stabilizing family life at home and assure the deployed soldiers that their family members are not alone. Religious facilities are essential to the command religious program that provides this vital support to families.

Post Exchange (PX) Program

The PX program provides services and merchandise to soldiers and their families, regardless of location. The Army is emphasizing the operational efficiency of the PX program, both to adjust to the fiscal realities of reduced budgets and a smaller customer base and to maintain support for MWR programs, which rely on the exchange system for revenue. AAFES and local commanders continue to refine the spirit of cooperation and coordination that has developed during the last few years to ensure that the best services possible are provided to our soldiers and their families. AAFES has expanded the existing operations in Saudi Arabia, adding a distribution element that will support forces in the region.

The Commissary Program

The Army commissary system currently is undergoing reorganization as part of a plan to consolidate all of the services under a central headquarters, the newly established Defense Commissary Agency. A transition team is developing the command and control organization. The agency assumed provisional control on October 1, 1990, and will take over full operational control in October 1991. The agency will ensure more effective and efficient management of the joint service commissary system while maintaining quality service and responding to patrons' needs.

The Army already has brought technology to commissary operations with many new initiatives. The installation of scanning cash registers is now complete in 96 percent of Army commissaries worldwide. The development and fielding of the District Oriented Store System will improve the efficiency and effectiveness of the store reorder process in overseas operations.

To improve operations and provide the highest possible quality of life for patrons, more convenient shopping hours have been established at many commissary stores. Currently, 58 percent of Army commissaries are open 6 or 7 days per week. In support of Operation Desert Storm, the number of days and hours of operation have been expanded in Saudi Arabia to meet new mission requirements. Selected reserve personnel are now authorized 12 discretionary visits to the commissary annually. The services provided by commissaries continue to be one of the most favored benefits among military members and their families. Full-service commissary operations, providing brand name products at the lowest possible price, continue to produce an average savings of 26 percent over their commercial supermarket counterparts. Total FY90 Army commissary sales were in excess of $2 billion, while Food Stamp sales neared $7 million. Total FY91 projected sales for the Army commissary system are over $2.1 billion.

Effective use of the surcharge fund has allowed the Army to accelerate our construction program for replacing and renovating commissary facilities. Although base closure and force realignment initiatives have temporarily postponed most major commissary projects overseas, four commissaries overseas and one commissary in the United States were opened in FY90. There are 12 replacement and major renovation projects in progress.

The Army seeks to provide our families a quality of life comparable to that enjoyed by civilian communities.

Better Opportunities for Single Soldiers (BOSS)

Better Opportunities for Single Soldiers is a program focused on the specific interests of young single soldiers. Installation BOSS committees, consisting of 15-20 soldiers, have been established at many installations throughout the Army. Commanders, MWR staff, and enlisted single soldiers, 18-25 years old, work together to establish healthy recreational outlets that satisfy today's young soldiers. The BOSS committees set up a communications link, provide a much needed volunteer corps to help implement these programs, and give the soldiers a feeling of responsibility. BOSS is a morale and confidence builder for the young single soldier. The MWR staff listen and provide the kinds of activities young soldiers want. Participation in the program is increasing, and BOSS contributes to the retention of high-caliber single soldiers.

Claims and Legal Assistance

An integral part of providing quality legal services to soldiers and family members is through personnel claims and legal assistance. These services assist soldiers and their families by reimbursing them for property loss or damage incurred during moves and by providing assistance in solving the complex legal problems facing them in today's world.

Within the worldwide Army Legal Assistance Program (ALAP), over 200 full-time legal assistance attorneys address issues ranging from adoption and child custody cases to separation agreements and tax problems. Last year, over 540,000 clients were seen on legal problems, including the drafting of over 65,000 wills. ALAP offices also executed over 800,000 powers of attorney and acts of notary public.

The Army Tax Assistance Program (ATAP) also is providing millions in savings to soldiers and their families through both the preparation of tax returns and the filing of these returns through electronic means. Last year, the ATAP prepared over 136,000 federal returns and 47,000 state returns. Over 46,000 federal returns were electronically filed with the Internal Revenue Service. This represents well in excess of $7 million in savings to our soldiers when compared with the commercial rates for these services.

Inspector General (IG) Activities

The Inspector General's mission to support Army commanders, soldiers, and their families continues in today's dynamic world. The Army's plan to reshape our force structure while simultaneously executing Operation Desert Storm increases the need for the IG's traditional functions of assistance, investigations, training, and inspections to protect the quality of life of our soldiers and their families.

The IG assistance program functions at installation and higher headquarters to resolve problems, conduct inquiries, and provide responses to queries of all types. Taken together, field IG's annually receive approximately 50,000 requests for assistance. These deal with pay, promotion, housing, education, and other concerns of married and single soldiers, family members, and Army civilians.

Because changing times often require changes in procedure, the IG inspection focus now includes abbreviated assessments that allow a "quick look" at more areas addressed by the Army imperatives. In September 1990, Department of the Army IG assessment teams and an Army Reshaping Monitoring Team began multiphased, Army-wide assessments focused on sustaining the force, reshaping the Army, and reviewing family assistance programs impacted by Operation Desert Storm. The IG, historically the "eyes and ears" of the commander, continues to play a vital role in our Army.

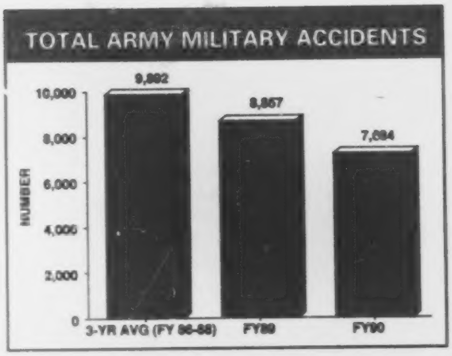
Army Safety Program

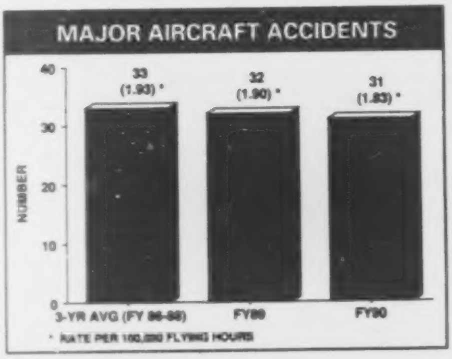
The Army Safety Program supports commanders in their efforts to reduce accidental manpower and material losses. Through the development of command-supported accident prevention strategies, the Army Safety Program seeks to achieve its goal of conserving resources and enhancing combat readiness. Key to this effort is the integration of safety into Army standards and the use of risk management techniques to identify and control or eliminate hazardous conditions.

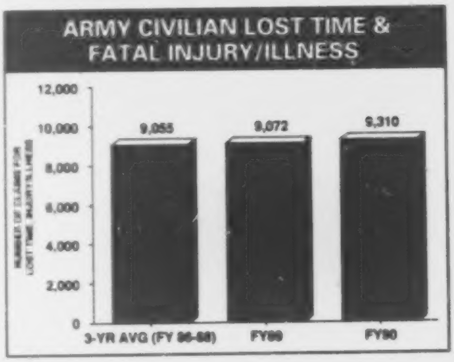
Although FY90 has been a year of tougher and more realistic training, the Army has made significant reductions in both the number and severity of accidents. In FY90, the total number of Army accidents was 24 percent below last year and 31 percent below the previous three-year average. The number of aircraft accidents was the lowest on record. While aircraft accident costs have increased, total accident costs, in terms of fixed FY88 dollars, decreased during FY90.

Army civilian injury accidents were the only type of accidents that increased in both number and cost during FY90. To address this trend, the Army has established a 5-year accident prevention goal in each of four interactive disciplines: civilian personnel, safety, medical, and financial management. One significant area of current command emphasis is reducing back injuries. Back injuries account for 20 percent of all civilian work force injuries.

In addition to existing accident prevention efforts, Army Safety Program policy development responsibilities have been expanded. New safety regulations have been developed to address toxic chemical agent, biological research, and nuclear safety programs. The explosives safety program has been restructured to allow greater participation by major Army commands, and safety also is actively considered in the Army environmental protection program.


TOTAL ARMY MILITARY ACCIDENTS


MAJOR AIRCRAFT ACCIDENTS


ARMY CIVILIAN LOST TIME & FATAL INJURY/ILLNESS

Support of Operation Desert Storm has been a top priority of the Army Safety Program. A Leader's Safety Guide emphasizing risk management, human factors, and aviation and ground safety was published to support Desert Storm in late August. The guide has since been updated to incorporate lessons learned during the initial phases of the operation. The development of training videos, specialized checklists and other requested support guidance has been ongoing since the beginning of the operation, and on-site accident investigation support has been provided by the U.S. Army Safety Center since September.

Preservation of resources will become even more essential as we reshape the Army. During this transition, the Army will ensure that safety momentum is maintained. The success of the Army Safety Program depends upon the emphasis and personal involvement of commanders and the ability of leaders and soldiers to recognize and manage the risks associated with Army operations.

Human Resources

The objective of human resources programs is to ensure the best utilization of our most valuable resource -- our people. The Army aims to maintain an environment that conserves human resources. Active measures are taken to prevent or ameliorate conditions that degrade unit readiness. To provide for total health fitness -- physical, mental, and moral -- programs and policies are provided for stress management, suicide prevention, Human Immuno-deficiency Virus management, and substance abuse.

Alcohol and Drug Abuse Prevention and Control Program

The Army's Alcohol and Drug Abuse Prevention and Control Program is a tremendous success in combating drug and alcohol abuse and its deleterious effects. Our positive urinalysis rate, which is only a small fraction of the early 1980's rates, continues to decline despite the expansion of our drug testing program. These accomplishments are the result of the Army's substantial and widely supported prevention, identification, and rehabilitation efforts. Consequently, the Army is continuing to expand these programs, especially for the Reserve Components and the civilian work force. In the future, the program's orientation will shift to adjust to declining Army manpower requirements; educational and preventive aspects of the program will receive greater emphasis.

Human Immuno-deficiency Virus (HIV) Policy

HIV infection is a continuing threat. The focus of the Army effort to combat this epidemic is twofold: periodically test all soldiers, both in the Active and Reserve Components, and develop high-quality information and education oriented to helping soldiers and their family members avoid infection. Army policy requires that all soldiers be tested for HIV at least every 24 months. Active duty soldiers who are infected are retained on active duty until they become clinically ill; however, they are placed in a nondeployable status. Reserve Component soldiers must prove fitness for duty and, if fit, may serve in a nondeployable billet. The Army has developed a knowledge, attitude, behavior, and practices survey that will be administered to 12,000 soldiers worldwide. This survey will help health educators develop information materials targeted to soldier interests, concerns, and life styles. Thus, the Army can develop preventive education programs that will more easily reach soldiers.

Army Health Promotion Program

Overall readiness of the force is related measurably to the individual health of our members. Research clearly shows a direct relationship between tobacco, alcohol, or drug abuse; stress; general poor health; or lack of cardiovascular fitness and decreased productivity and readiness. The key elements of the Army Health Promotion Program include health education, life-style assessment and counselling for identified risk factors, an active program of suicide prevention, and spiritual fitness programs.

Health risk appraisal coordinators at medical treatment facilities manage the health risk appraisal program. Risk appraisal may occur during periodic physical examination or in-processing, or by referral or unit initiation. Self-referral is the primary means of evaluating family members, retirees, and civilians. After screening, behavioral change strategies are recommended and clinical follow-up is provided if required.

Equal Opportunity

Equal opportunity for everyone in the Army is a reality and is the only acceptable standard. We are justifiably proud of the many accomplishments the Army has made in the field of equal opportunity, while recognizing that much remains to be done.

Equal opportunity is essential to providing our soldiers and civilians a quality environment in which they know that their efforts can be focused on their mission and that rewards and promotions will be based solely on merit. The Army's success in accomplishing this is one reason that the quality of our soldiers has never been higher.

Other indicators of the success of the Army's Equal Opportunity program are the increasing representation and retention rates for minorities and women. Minority and female representation in the officer corps is the highest it has ever been. Enlistment rates among minorities are continuing to increase, indicating that our soldiers feel that they can succeed in the Army. In fact, in the areas of promotions and selection for schooling and assignments, minority soldiers continue to develop and grow with their contemporaries. Further, under the stresses of an ex-

The Army is a leader in equal opportunity.

tended deployment, family separation, and combat, the cohesiveness among our units deployed on Operation Desert Storm has been excellent.

Today's Army continues to serve as the Nation's leader in equal opportunity. This success comes from total commitment to the ideals upon which our country was founded.

Environmental Program

The Army is committed to setting the standard for DOD and other federal agencies as the leader in compliance with environmental law, prevention of environmental damage, and the protection and stewardship of the environment. The land, water, and other natural resources made available to the Army are limited and must be carefully managed and conserved to serve the Army's short- and long-term needs. Protection of these resources is the duty of every member of the Total Army. Focusing on military programs, civil works, and support for other agencies, work and actions will be conducted in an environmentally sustainable manner, and environmental considerations will be integrated into all Army activities.

For FY91, the Army has allocated $1.2 billion to our environmental program. This includes funding for compliance with regulatory requirements, restoration of lands damaged through past practices, prevention of pollution, and minimizing the generation of hazardous wastes.

During FY89/90, the Army undertook a critical self-review, including an analysis of the organizational structure required to effectively carry out our critical environmental mission, that identified some systemic problems. We are in the process of fixing them. Key initiatives include developing an automated system for tracking and reporting compliance status; linking the Army Environmental Requirements Report to the Programming, Planning, Budgeting and Execution System; formulating an integrated Five Year Hazardous Waste/Hazardous Materials Management Plan; developing a life-cycle approach to hazardous waste management; and creating an environmental law division within the Office of the Judge Advocate General. For the long term, the Army is studying opportunities for hazardous materials and waste intervention, developing an Environmental Master Training Plan, establishing an Environmental Policy Institute, and setting up an Environmental Response and Information Center. Most importantly, environmental awareness is being incorporated into every element of training for the soldier and civilian members of the Army.

The Army continues aggressive action to clean up contaminated sites on Army installations. Under the Army's Installation Restoration Program, remedial work was completed at 130 sites by the end of FY90. Likewise, work is under way in the Formerly Used Defense Sites Program, for which the Army is the executive agent, with remedial action completed at 365 sites. Twenty-three Federal Facilities Agreements have been signed at the Army's National Priorities List sites.

The Army is moving forward with an excellent environmental program; however, there is still much work to be done. Some challenges remain, such as the need to refine future requirements and to program and budget for them and the necessity for improvement in accountability mechanisms. Further, the number of environmental professionals involved in managing the Army Environmental Program is inadequate. This is largely due to the exponential growth in the number and complexity of environmental issues and the difficulties that the Army is having in recruiting and retaining qualified individuals because of stiff competition from industry, academe, and other Federal agencies. In the near term, the biggest challenge will be moving beyond compliance to focus on our Pollution Prevention Program, while at the same time maintaining our vigilance in the areas of compliance, restoration, and resource management. Additionally, the Army will continue to improve our interaction with local communities to ensure their understanding of our efforts and to solicit their involvement and commitment.

Force Protection (FP)

Force protection refers to Army efforts to protect service members and their families around the world from violence. It integrates combating terrorism, operations security, crime prevention and physical security, law enforcement, base defense, and personal protective services with other intelligence, counterintelligence, and security programs.

Force protection has so far demonstrated its effectiveness in Operation Desert Storm, which has provided a particularly difficult challenge to our FP activities. The confrontation with Iraqi forces, coupled with the specific threat from the many Middle Eastern terrorist groups, is challenging the Army's FP capabilities.

FY90 was the safest year since terrorism became a daily watchword for the U.S. Army. Last year, fewer soldiers or family members fell victim to terrorist acts than in any year since 1983.

The Security and Force Protection Enhancement Resources (SAFER), an innovative, technology-based security initiative, has moved from concept to implementation in the field. This collection of nonthreatening, nonlethal electronic warning and assessment devices has been deployed with Army elements throughout the world. SAFER enhances the security of our soldiers in Honduras, Panama, and Bolivia; guards key munitions sites at Johnston Island; and is deployed with our forces in Operation Desert Storm.

IV. Doctrine

Doctrine provides the foundation for Army training and operations.

The Role of Doctrine

Doctrine guides the Army in the execution of our strategic roles. Doctrinal principles, tenets, and fundamentals provide guidelines for the conduct of military operations during peace, conflict, and war. The Army's current doctrine, AirLand Battle, is based on fundamental, well-understood principles rooted in actual military experience. It applies to Army forces worldwide but is readily adaptable to the specific strategic and operational requirements of each theater or regional area. Our doctrine is forward-looking and seeks to take advantage of technology to maximize the application of military power. Army doctrine also furnishes the authoritative basis for subordinate doctrine, force design, materiel acquisition, professional education, and individual and unit training. It provides a long-term foundation for the development of more transitory tactics, techniques, and procedures.

AirLand Battle Doctrine

AirLand Battle is the Army's capstone warfighting doctrine. It reflects the dynamics of combat and the application of time-tested principles of war to contemporary battlefield conditions. It is called AirLand Battle in recognition of the inherent joint and combined nature of modern warfare.

AirLand Battle doctrine serves as the foundation for the development of tactics and operational art, the systematic evolution of force structure, and the development of materiel. It forms the basis for planning and conducting campaigns, major operations, battles, and engagements in conjunction with other services and allied forces. It recognizes that the Army must be able to fight in any environment and on any battlefield, including under nuclear, biological, and chemical conditions. It forms the basis for developing leaders and for guiding professional education and soldier and unit training. It also establishes the framework in which resource allocation guidance is developed.

The essence of AirLand Battle is the defeat of the enemy by conducting simultaneous operations over the full breadth and depth of the battlefield. Commanders concurrently fight close, deep, and rear operations as interrelated parts of the battle. Commanders conduct close operations to destroy enemy forces where the battle is joined; deep operations to destroy, delay, and disrupt enemy follow-on and counterattacking forces; and rear operations to retain freedom of action for friendly sustainment and movement of reserve forces. Aggres-

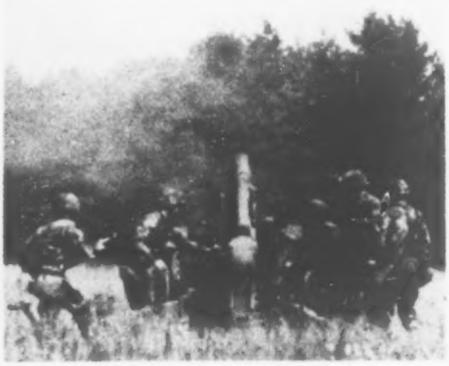
sively executed deep and rear operations are fundamental to the success of close operations.

AirLand Battle doctrine is maneuver-based and allows commanders to fully integrate the capabilities available to them. It envisions the rapid shifting and concentrating of decisive combat power at the critical time and place on the battlefield. It is leader-intensive, seeking to leverage the initiative of the commander.

Success on the battlefield depends on the Army's ability to fight in accordance with AirLand Battle's four basic tenets: initiative, the capability to set or change the terms of battle by offensive action; agility, the ability of friendly forces to plan and act faster than the enemy; depth, the extension of operations in time and space; and synchronization, the arrangement of battlefield activities to produce maximum combat power at the decisive point.

Joint Doctrine

The tenets of AirLand Battle also guide the Army's participation in the development of joint doctrine. Joint and Army doctrine assists commanders as they conduct simultaneous multiservice operations over the depth and breadth of their theaters of operation. As joint operations are the norm in modern warfare, the effective coordination of forces from the various services is essential for success in combat. Consequently, over the last few years, the services and the Joint Staff have expended considerable effort in developing joint doctrine. Last year, the Joint Staff revised its master plan for the development of joint doctrinal publications to update milestones and refine procedures.



The Army has been charged with developing 16 major joint publications, ranging from joint operations to health support. The Navy is developing seven, and the Air Force and Marine Corps three each. The remaining 118 publications are being developed by the Joint Staff and other agencies.

Currently, 15 approved test publications are being evaluated prior to final publication. An additional 29 publications will be developed during FY91. Current operations related to Operation Desert Storm will have significant implications for joint doctrine, providing substantial opportunities to evaluate aspects of joint doctrine under operational conditions.

Combined Operations

Operation Desert Storm is a pointed reminder of the Army's need to operate in conjunction with the armed forces of other nations. Such combined operations -- those involving forces from two or more countries -- are an integral part of our coalition-based defense strategy. Success in combined operations requires the maximum possible interoperability and standardization between U.S. forces and our allies. Combined doctrine provides guidance for the conduct of operations in multinational environments.

A variety of efforts between the United States and our major allies, such as military-to-military exchanges and formal standardization agreements, are aimed at improving the ability to operate together. Training in combined exercises also contributes to the development and refinement of common doctrine, tactics, techniques, procedures, and equipment. AirLand Battle doctrine provides the basic framework for developing compatible tactical doctrine with our allies.

Low-Intensity Conflict (LIC)

LIC is a politico-military confrontation between contending states or groups at a level less than conventional war and more than routine peacetime competition between states. The Army's role in LIC is well-defined in national security policy. The Army is the executive agent for most LIC doctrine. Army Field Manual 100-20, Military Op-

erations in Low Intensity Conflict (developed with the Air Force), and Joint Publication 3-07, Doctrine for Joint Operations in Low Intensity Conflict, complement one another and describe possible military roles. Army operations under LIC include support for insurgencies and counterinsurgencies, combating terrorism, peacekeeping operations, and peacetime contingency operations, such as shows of force, noncombatant evacuation operations, security assistance, and support to counternarcotics efforts. LIC is the security challenge most likely to confront the Army in the 1990s.

Special Operations

The Army provides the preponderance of special operation forces (SOF) to the CINCs for execution of different contingencies around the world. Special operations forces may be required to execute sensitive missions authorized by the National Command Authorities, but SOF are also integral to the operations of Army and joint forces in all situations. These include a role in nation assistance and support for U.S. country teams worldwide.

Special operations doctrine provides guidance for the five elements that comprise Army SOF: Special Forces, Rangers, special operations aviation, psychological operations, and civil affairs. These forces are specifically organized, trained, equipped, and regionally oriented to provide a versatile military capability to achieve military, political, economic, or psychological objectives in hostile, denied, or politically sensitive areas worldwide.

SOF doctrine covers the planning, conduct, and support of special operations in all operational environments -- peacetime competition, conflict, and war. The doctrine acknowledges that Army SOF missions normally include joint or interagency activities and that many missions are conducted as combined activities with allied or friendly forces. Doctrinally, Army SOF missions include unconventional warfare, direct action, strategic reconnaissance, foreign internal defense, civil affairs, psychological operations, counterterrorism, humanitarian assistance, theater search and rescue, and other activities as specified by the National Command Authorities.

Future Doctrine

Systematic and evolutionary update of current doctrine is necessary to prepare the Army for the battlefield of tomorrow. AirLand Battle will undergo revision in the near future. Envisioned changes will include a more detailed discussion of maneuver; a closer analysis of military operations in peacetime competition, conflict, and war; the refinement of the doctrinal principles of low-intensity conflict; and greater emphasis on joint and combined contingency operations, power projection operations, and logistical operations.

Over the long term, AirLand Battle-Future, when fully developed and validated by analysis and field tests, will provide the forward-looking focus to guide the evolution of our doctrine, training, organization, materiel, and leader development. The increasingly lethal, highly mobile battlefield of the future will require capabilities for long-range target identification and engagement and agile maneuver and support forces.

Our doctrine will be a guiding force in shaping the Army of the future, including:

- A versatile, modern, and capable Total Force that contains the appropriate mix of armored, light, and special operations forces;

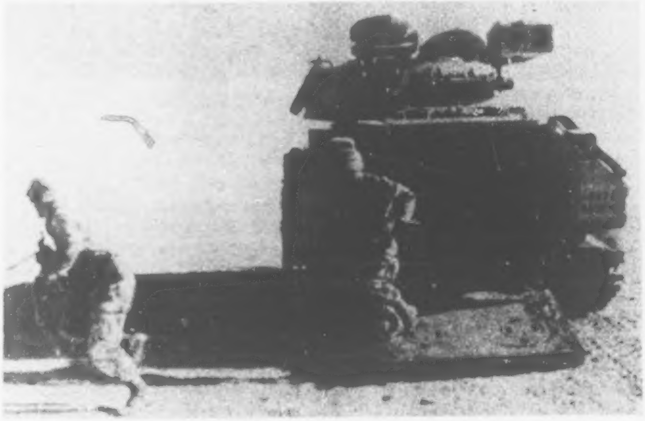
- A modernization and research and development strategy that reflects fiscal realities but maintains the

technology base and seeks to maximize the application of U.S. technological advantages;

- Capabilities to train the force in combined arms operations closely approximating the way we intend to operate; and

- Institutionalized leader development programs that produce tactically and technically competent leaders who are bold, decisive, confident, and capable of operating effectively on future battlefields.

The Army will pursue these objectives with the evolutionary application of current doctrine and the refinement of evolving concepts under AirLand Battle-Future as the basis for our actions.



We will continue to refine the doctrine for the employment of Army forces as we reshape the Army for the future.

V. Force Structure

The Army's forces are being reshaped for the changing security environment: Armored forces are essential in modern maneuver warfare.

Overview

The Army's force structure consists of armored, light, and special operations units; their supporting elements; and sustaining base activities. These units are organized, equipped, and trained to fulfill the Army's strategic roles in support of national security strategy. Choices about the size and composition of the Total Army are based upon assessments of current and potential threats to the Nation and of the capabilities required to meet them. These assessments are tempered by considerations of affordability and risk. The Army's challenge is to maintain the appropriate mix of these forces as we reshape the Total Force for the future.

In projecting future force reductions, the Army has focused on maintaining sufficient forces in the Active Component to satisfy crisis response and most forward presence requirements, and on a structure for CONUS-based reinforcing forces that relies primarily on the Reserve Components (Chapter I). Although these plans undoubtedly will be adjusted based on the duration and impact of Operation Desert Storm, current plans call for the Army to draw down to a 4-corps, 22-division force by 1993 and ultimately to a 4-corps, 20-division force by the mid-1990s. We strongly believe that this is the minimum force required for the Army to meet the Nation's future needs for a sustained land combat capability.

The future Army will be largely CONUS-based. Forward presence will be maintained by forward deployments at levels sufficient to maintain credible deterrence and to demonstrate unambiguous commitment and resolve to allies and friends worldwide, and supplemented by the periodic deployment of forces from the United States or from forward locations. The Army in CONUS will likely consist of a contingency force of five active divisions rapidly tailorable for crisis response and other immediate requirements worldwide; an early reinforcing force of three active divisions rounded out by National Guard brigades; a follow-on reinforcing force of six National Guard divisions; two cadre divisions; and the requisite general support forces. When reductions to this level are completed, the Nation will be at the limits of acceptable risk with regard to its ground forces, even with the continued nonconfrontational posture of the Soviet Union.

Armored Forces

Armored forces are essential in modern maneuver warfare against a variety of well-armed potential foes. Consisting of armored and mechanized infantry divisions equipped with Abrams tanks, Bradley fighting vehicles, Apache attack helicopters, and advanced field artillery systems, such as the Multiple Launch Rocket System, the Army's armored forces possess the firepower and lethality necessary to dominate combat on mid- and high-intensity battlefields, and are important to complement light forces on lower-intensity battlefields. Five of the Army's armored and mechanized infantry divisions and two armored cavalry regiments are currently providing the bulk of the coalition's ground combat power for Operation Desert Storm.

Current assessments indicate both the opportunity to reduce the number of armored forces available for immediate employment and reinforcement of NATO and the need to increase the armored capabilities of Army contingency forces. Our plans for reshaping the Army involve reducing our forward-deployed armored forces in Europe as quickly as prudently possible and reconfiguring the Army based in CONUS to have two complete armored divisions immediately available for deployment in contingencies worldwide.

The Army currently has six armored and nine mechanized infantry divisions. Eleven of these divisions are in the Active Component, five of which are currently rounded out with Reserve Component combat brigades. Four of these divisions are in the Army National Guard.

Light Forces

Army light forces consist of light infantry divisions, the 82nd Airborne Division, the 101st Airborne Division (Air Assault), and the 9th Infantry Division (Motorized), which is in the process of converting to a separate motorized brigade. These forces are designed to provide the Nation an extremely versatile strategic force-projection and forcible-entry capability to deploy quickly to trouble spots worldwide. This capability was clearly demonstrated in Operation Just Cause and again during Operation Desert Storm, when tailored packages of airborne and special operations forces rapidly deployed to the Arabian Peninsula.

When appropriate, light forces are integrated with armored forces to provide the mix of combat power to meet the requirements of a given contingency. The Army continues to implement the Heavy-Light Forces Integration Improvement Plan that will maximize the ability of our light and armored forces to operate together. Integrated training at our training centers and the education of leaders in our school system ensure that these forces can work in concert.

Currently, there are four light infantry divisions in the AC, two of which have roundout brigades, and one division in the Army National Guard. The ARNG also has five standard infantry divisions.

Light forces have unique capabilities in peace and war.

Special Operations Forces (SOF)

Army SOF provide the theater commanders a broad range of military options. They consist of Special Forces, Ranger, special operations aircraft, psychological operations, and civil affairs units and make up some 70 percent of the Nation's SOF personnel.

Army Special Forces units are designed to train and assist foreign military and paramilitary forces worldwide in internal defense, unconventional warfare, reconnaissance, counterterrorism, and humanitarian assistance. As these forces will play an increased role in promoting regional stability, the Army recently has activated another Special Forces group headquarters and one battalion, which will be oriented towards African countries. The remaining two battalions in this group will be activated in FY92 and FY93, bringing the number of Special Forces groups to nine -- five in the Active Component, two in the USAR, and two in the ARNG.

Army Rangers are unique light infantry units organized and trained to deploy rapidly to any region of the world to conduct special operations against critical military objectives. In conjunction with the Navy and the Air Force, Rangers can provide a powerful military capability and augment the forcible-entry capability of the 82nd Airborne Division. The 75th Ranger Regiment consists of a regimental headquarters and three Ranger battalions.

With its growth in personnel and aircraft, Army special operations aviation (SOA) has significantly increased its capability for all types of conflict. Specially trained crews and modified aircraft provide the unique capability to support SOF missions at night and during adverse weather. These SOA assets are organized into one SOA regiment consisting of four SOA battalions (three AC and one RC), two SOA separate companies, and one forward-deployed SOA detachment. SOA's specifically configured aircraft have proven their effectiveness in recent operations ranging from missions off U.S. Navy ships in the Persian Gulf to combat in Panama and in Operation Desert Storm.

U.S. Army psychological operations (PSYOP) forces provide the theater commander with a means to shorten conflict, reduce casualties on both sides, and achieve military objectives with minimum force. Through PSYOP, the commander has the ability to communicate U.S. policy to denied areas and to create appropriate perceptions to facilitate U.S. and allied operational success. PSYOP units are trained and equipped to provide influence at the strategic, operational, and tactical levels of war. Well-designed and executed PSYOP campaigns

Special operations forces perform a broad range of missions.

can also provide significant support to counternarcotics operations, low-intensity conflict, and contingencies short of war. The Army maintains three PSYOP groups composed of six battalions and 27 companies in the U.S. Army Reserve and one group composed of four battalions and six companies in the active Army.

Civil affairs (CA) units provide the important interface between deployed military forces and the civilian government and population. All CA units, with the exception of two Marine Corps Reserve units, are maintained in the Army's force structure. There are currently 36 USAR CA units stationed in 22 states and one active CA unit stationed at Fort Bragg, North Carolina.

The Army recently activated the U.S. Army Special Operations Command (USASOC) as the sixteenth Army major command (MACOM) and the Army Component headquarters of U.S. Special Operations Command. All reserve SOF came under the control of USASOC in October 1990. The training, operations, and budget activities of RC SOF forces will now be aligned with those of the Active Component. Additionally, all special forces units will come under the control of the 1st Special Operations Command, an Active Component command, and all civil affairs and psychological operations units will come under the control of the 1st Civil Affairs and Psychological Operations Command, a reserve command. This will functionally align like units for training and mission guidance.

FY90 Force Structure Actions

FY90 was the first year of the Army's planned force structure reductions. In addition to the previously inactivated brigades from the 9th and 4th Infantry Divisions, the 2nd Brigade, 2nd Armored Division, and the 1st Brigade, 9th Infantry Division (Motorized), were inactivated last year. Additionally, the 194th Separate Armored Brigade was reorganized into an armored battalion task force, two field artillery battalions were inactivated, and about 1,200 headquarters spaces were eliminated.

These inactivations validated our concerns about the significant turbulence generated in the force by large-scale force reductions. As we cannot declare "time out" to reshape the Army, minimizing turbulence as we restructure the force is absolutely critical to preserving essential warfighting capabilities, to caring adequately for our soldiers and civilians, and to exercising effective stewardship over the Army's assets.

Our recent experience has shown that the impact of inactivating units goes well beyond the particular unit being inactivated. The inactivation process places Army-wide demands on our logistical support structure and personnel management activities. Inactivations must be carefully phased to ensure that we properly manage equipment refurbishment and transfer, reassignment and relocation of personnel, revitalization and transfer of facilities and grounds, and transfer of missions and responsibilities.

The effectiveness with which the Army can carry out programmed force reductions is directly related to the steepness of our force reduction "ramp" -- how far and how fast the Army must reduce the force. Our original plan called for reducing the Army by 35,000 soldiers per year over a 4-year period. Reducing at this "ramp" would enable the Army to maintain a qualitative process for equitably selecting and processing officers and soldiers from the service without resorting to a reduction-in-force for enlisted soldiers; to manage accessions to meet future manning requirements; to manage efficiently personnel assignments to ensure proper job and skill match; and to permit the concurrent reduction of force structure and personnel so essential to the proper manning of the force. While we have currently suspended our plans for reducing the force until the completion of Operation Desert Storm, the steeper ramp envisioned in the current program will force the Army above the 35,000 soldiers per year threshold to around 42,000 soldiers per year. The accompanying increase in turbulence, compounded by the requirements to reverse "stop loss" provisions for the active force and to release over 150,000 reservists from active duty, will have a significant negative impact on Army-wide readiness.

Shaping the Total Force

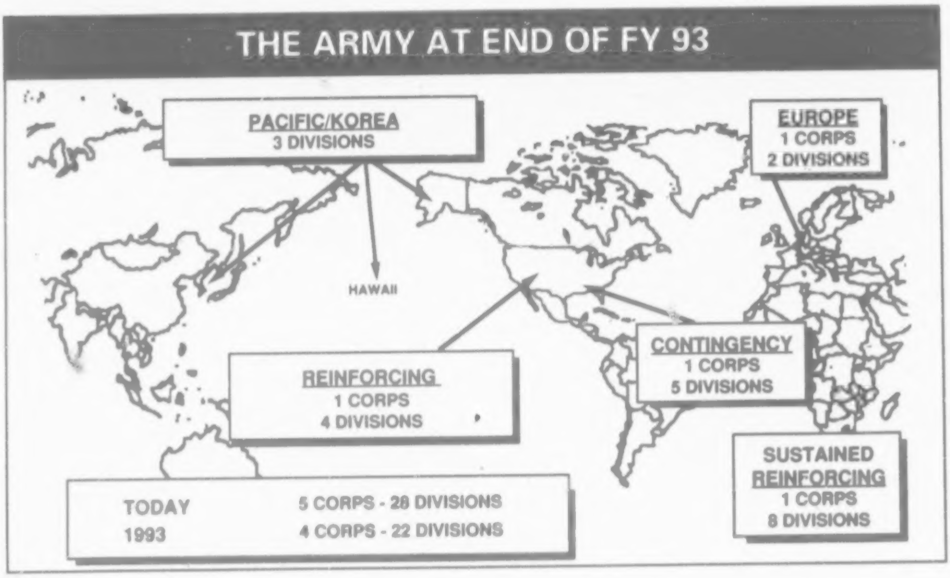
Operation Desert Storm has clearly demonstrated that the Army Reserve Components are an integral part of the Total Force. Over 150,000 Army National Guard and U.S. Army Reserve soldiers are currently contributing to the accomplishment of our national objectives in the Persian Gulf. This opportunity to exercise the Total Force

Policy will enable the services to update and refine the existing policy based on lessons learned from the Operation Desert Storm call-up. The results thus far have been heartening; we have mustered the Total Force for Operation Desert Storm, and it has responded magnificently. The Army will continue to examine the Total Force Policy in order to benefit from Operations Just Cause and Desert Storm and to refine it for the rapidly evolving and uncertain international environment.

As the Army shapes the Total Force for the future, the size and composition of both the active Army and the Reserve Components will evolve to allow the Army to accomplish our strategic roles and to remain relevant to the international environment. Our current assessments indicate several trends that dictate adjustments to the Total Force. First, the reduced requirement to maintain large numbers of ready forces for rapid deployment to Europe to counter a massive, short-notice Soviet armored assault enables the Army to reduce the number of our armored divisions and the combat support and combat service support units that are dedicated to support these divisions. Second, the immediate deployment capabilities required by the unpredictability and uncertainty of the future international environment will require units that are prepared for deployment without delays for additional training. Hence, initial deployment capabilities must be provided by primarily Active Component units. Third, because of the Army's significantly smaller size, we will continue to rely extensively on the RC to reinforce extended contingency operations, to deal concurrently with a second major contingency, and to hedge against a resurgent and hostile Soviet Union or other large-scale threat to U.S. security. Fourth, the increasing time available to detect and counter a major Soviet reversal permits reliance on the capability to regenerate additional force over a longer period of time. This has permitted the Army to reduce the size of our Total Force and to begin to design provisions for expanding the force.

As discussed in Chapter II, the Army plans to build down to a smaller, capable Total Force over the next several years. These plans to reshape the force are based upon the need to provide the Nation with the sustained land combat capabilities that it will require to meet the challenges of the 21st century. We have planned to reduce the size of the force to the irreducible minimum the Nation will require in the international environment we envision for the future. To accomplish this in the current fiscal environment, both the AC and RC must be reduced. Maintaining larger forces than required will result in "hollow" structure -- units that are poorly trained, undermanned, and ill-equipped. We cannot afford this in the smaller force that we have planned for the future.

Active Component reductions began in FY90. No RC end strength reductions were planned for FY91 pending the completion of the Total Force Policy Study. The study has been completed and submitted to Congress. The Army intends to continue with RC end strength reductions in FY92 as a part of our plan to shape a smaller, capable, and quality Total Force.


THE ARMY AT END OF FY 93

It is also the Army's intent to seek innovative means to enhance the warfighting capabilities and readiness of the RC so that they can more effectively fulfill their wartime missions. The Army has recently been evaluating the cadre division concept as mandated by the FY91 Authorization Bill. The Army's Training and Doctrine Command is currently refining this concept so that it can be tested and fully evaluated in the near future.

The Army also seeks to establish command relationships that optimize the readiness of the Total Army and enhance the ability of the RC to contribute to the accomplishment of the Army's strategic roles. For example, on October 1, 1990, the Army implemented a plan to transfer control of the USAR budget process from the Commanding General of the U.S. Forces Command to the Chief of the Army Reserve. This action takes existing layering out of the budget process and places control of USAR funds under the Chief of the Army Reserve. Also on October 1, 1990, the Army established a provisional USAR Command that will be a fully operational Major Subordinate Command of Forces Command by the end of FY92. The Chief of the Army Reserve is serving as commander of this new organization. In this capacity, he will ultimately command all USAR units assigned to Forces Command, while continuing to serve as the principal Department of the Army staff adviser on the Army Reserves.

Shaping the Support Structure

The Army recognizes that our general support forces (e.g., installation support activities) must be reshaped along with the general purpose forces (e.g., combat divisions) in order to make the best use of resources and to provide effective support to the Total Army. Activities, functions, and force structure of the general support forces must be modified or cut where appropriate to provide the most efficient overall Army force structure while maintaining readiness.

The Army is applying the same care and thoroughness in planning to restructure the general support forces that we have used in developing the designs for the general purpose forces. Project Vanguard was a special study group composed of functional experts drawn from the Army staff and major field commands to review the missions, functions, and organizational structure of the Army's general support forces and to reshape these forces to meet Army needs and resources in the future.

The primary purpose of Project Vanguard was to redesign the general support forces based on the planned reduction of the general purpose forces and projected future needs, and to introduce more efficient and effective ways of doing business in the process. Its functional review of general support forces resulted in recommendations concerning alternative concepts, policies, and organizations to complement and sustain the smaller, more CONUS-based fighting force of the future.

All general support forces were subject to review: Headquarters, Department of the Army (HQDA), staff; MACOMs; field operating agencies; and installations. Project Vanguard considered Active, Reserve Component, overseas, and CONUS units, as well as joint and defense agencies. Special attention was given to missions for which the Army has DOD oversight responsibility. Faced with rapid changes in the international security environment and increasing fiscal pressure, a number of MACOMs and staff agencies also initiated separate reorganization initiatives and efficiency reviews. Project Vanguard provided a common framework for rationalization of these initiatives within the Army's overall plans.

Project Vanguard initiatives are broadly categorized as follows (The terms *realign* and *realignment* are used to refer to the broad range of initiatives recommended by the study group, such as activity and headquarters reductions, consolidations, relocations, disestablishments, as well as mission redistributions to other headquarters or agencies.):

- Realignment of HQDA and field operating agencies and activities;

- Realignment of CONUS forces to provide the RC a greater role in planning for mobilization and the land defense of CONUS and to streamline the chain of command;

- Realignment of training and combat developments within Army centers and schools;

- Restructure and realign logistics functions;

- Restructuring of installation and base operations management to give greater visibility to this major mission area;

- Restructuring and realignment personnel management functions within the Total Army; and

- Other initiatives, encompassing realignments of the intelligence community, reductions to Information Systems Command, and realignment of the testing and analytical communities. A variety of recommended changes in policy and procedures round out the Project Vanguard initiatives.

Project Vanguard completed its review in December 1990, providing the Army with a number of proposals for reshaping our general support forces. The initiatives generated through the efforts of the Project Vanguard study group are being actively pursued by the Army.

Force Structure Adjustments, FY92/93

Although the FY92/93 budget continues to reduce the active force with reductions of 42,000 personnel per year to an end strength of 660,000 in FY92 and 618,000 in FY93, the actual end strength "ramp" will be adjusted after the accomplishment of our national objectives in Operation Desert Storm. The majority of the force structure associated with that reduction will come from Europe, as the Army draws down to a 4-corps, 22-division force by the end of FY93. Reductions in Korea also will continue in concert with the President's report to Congress "A Strategic Framework for the Asian Pacific Rim -- Looking Toward the 21st Century." Reserve Component end strength is programmed to decline to 694,000 in FY92, and 621,000 in FY93, and civilian end strength to 329,000 and 315,000 personnel in FY92 and FY93 respectively.

The Army will maintain forward-deployed forces . . .

. . . and forces for forcible-entry and rapid deployment worldwide.

VI. Training and Sustainment

Tough, realistic training prepares units, leaders, and soldiers for combat

Training

Training prepares soldiers, leaders, and units to fight and win in combat -- the Army's basic mission. The Army must be trained and ready in peacetime to deter war and, if required, to rapidly commit Army forces to combat to protect U.S. interests. As Operations Just Cause and Desert Storm have illustrated, our Nation's ability to deter attack and act decisively to contain or de-escalate a crisis depends on the ability to adapt quickly from peacetime levels of preparedness to war footing. This requires that all leaders in the Army attain and sustain high standards of combat readiness through tough, realistic, multiechelened combined arms training. This section discusses Army programs designed to accomplish this as we restructure the Army.

Unit Training

Training of soldiers and leaders in schools or units serves one underlying purpose -- to enhance the ability of units to perform their mission. Unit readiness is the objective of all Army training. The complexities of modern warfare require frequent unit training under conditions that approach wartime realism. Ideally, such training includes the innovative use of available training simulations with deployment exercises and field maneuvers to fully integrate all unit functions.

Combat Training Centers (CTC)

The CTC program is central to the Army's strategy of maintaining a lethal and ready force capable of rapidly deploying and winning any ground conflict. The CTC program has made a greater contribution to improving and sustaining the professionalism and warfighting capability of the Total Army than any other single program. The CTCs encompass the National Training Center (NTC), the Joint Readiness Training Center (JRTC), the Combat Maneuver Training Center (CMTC), and the Battle Command Training Program (BCTP). The centers provide advanced unit training and training in joint operations for the full range of AC and RC armored, light, and special operations units under realistic combat-like conditions. CTC training provides immediate feedback to commanders and provides lessons learned and data that contribute to improving the Army's warfighting capability. CTC lessons are applied continuously to the ongoing process of organizational and force structure design and materiel, training, and doctrinal development.

The National Training Center at Fort Irwin, California, provides realistic combat training under mid- to high-intensity conflict conditions. Scenarios concentrate on armored and integrated armored and light unit operations. The NTC will conduct 12 rotations in FY91 (two fewer than in FY90); however, 33 battalions will be trained (one more than in FY90) because of improved integration of armored and light unit training. Other improvements in NTC capabilities include better instrumentation, more brigade-level operations, and an expanded focus on contingency operations. The NTC also has recently proven invaluable as a training ground for ARNG armored forces preparing for possible deployment for Operation Desert Storm.

The Army's National Training Center provides intense unit training.

The Joint Readiness Training Center, currently operating at Little Rock Air Force Base and Fort Chaffee, Arkansas, provides training focused on low- to mid-intensity contingency operations. Forces trained include airborne, air assault, light infantry, and other rapid-deployment units. SOF and armored operations are extensively integrated into training at the JRTC. There also is a strong Air Force commitment to the JRTC by both the Military Airlift Command and the Tactical Air Command. This commitment results in substantial joint training. In FY91, the JRTC will again conduct nine rotations.

The Combat Maneuver Training Center at Hohenfels, Germany, provides CTC training to the forward-deployed forces of U.S. Army, Europe (USAREUR). Focused on mid- to high-intensity armored force scenarios, USAREUR maneuver battalion have been training at the CMTC once every 14 months. As USAREUR force structure is reduced, the training opportunities for the remaining units will be greater, and training time for each battalion may be increased.

The Battle Command Training Program operates from Fort Leavenworth, Kansas. It extends CTC training to division and corps commanders and their staffs. The two-part BCTP experience consists of an AirLand Battle Seminar followed several months later by a computer battle simulation command post exercise. Both phases can be conducted at the unit's home station, permitting more realistic training, with wider involvement of staffs in a tactical field environment, at lower cost.

Army and Joint Exercise Program

Army forces conduct military exercises to simulate wartime operations. Exercises conducted in a realistic battle-focused setting help train commanders, staffs, and units for combat and enhance force readiness. Senior commanders use military exercises to integrate units and staff performing separate battlefield functions into combined arms forces. Exercises allow leaders, staffs, and units to practice operational procedures and to refine war plans. After-action reviews identify lessons to improve performance of units throughout the Army. The Army conducts unilateral exercises at all levels from Headquarters, Department of the Army, to corps level and below, while joint exercises are normally conducted as part of the Chairman, Joint Chiefs of Staff (CJCS), Exercise Program. Ninety percent of all CJCS exercises are conducted overseas.

The primary objective of the CJCS Exercise Program is training to improve the CINC's warfighting capabilities. Exercises in the program are designed specifically to ensure U.S. forces are trained to accomplish those tasks that are essential to the execution of the CINC's war plans. The CJCS Exercise Program is the Army's primary joint training vehicle and provides Army forces the opportunity to train under the operational control of the warfighting CINC. Exercises in the program range in size from small no-notice interoperability exercises to worldwide command post exercises and large-scale overseas deployment exercises. Significant exercises in the program include:

- REFORGER is a CONUS-based deployment exercise to demonstrate rapid reinforcement of NATO and U.S. warfighting capabilities, improve NATO interoperability, and exercise general defense plans. Future REFORGER exercises will be scaled down and make more use of computer simulation. This will enable us to train more staffs -- those that benefit most from large exercises -- and to decrease the number of troops and tactical vehicles in the field. This is another example of more realistic training at reduced cost.

- Team Spirit is a large-scale field training exercise in Korea involving forces from both the United States and the Republic of Korea. The exercise is designed to increase combat readiness of Republic of Korea and U.S. forces through training in combined and joint operations, to include strategic and tactical movement, reception, employment, and redeployment of CONUS-based forces. Principal participation includes I Corps from Fort Lewis, Washington; the 25th Infantry Division (Light) in Hawaii; and a large number of Reserve Component combat service support units from throughout the United States.

- Bright Star is a large-scale overseas deployment exercise conducted every other year in Egypt and several Middle Eastern countries. More than 6,000 Army soldiers participated in Bright Star 90. The exercise emphasizes strategic mobility and rapid deployment of combat-ready forces. Lessons learned from past Bright Star exercises were instrumental in the success of the Desert Storm deployment.

Soldier training teaches required individual skills.

- Fuertes Caminos and Ahuas Tara exercises involve deployment of CONUS-based forces to Central and South America. The primary focus of these exercises is nation assistance. The majority of forces participating in these exercises are from the Reserve Components.

Theater commanders report that the CJCS Exercise Program is taking on increasing importance as a primary means of demonstrating U.S. commitment to our allies and maintaining relationships with developing countries.

Soldier Training

Individual soldier training serves as the foundation for collective and unit training. The institutional training base -- centers and schools -- provides soldiers and leaders with the solid background of individual skills necessary to become fully effective members of the Army.

Initial Entry Training

Army Training Center operations have been revised to accommodate new trends in soldier training. The efficiency of the training base will continue to be improved by minimizing the number of basic combat training graduates who must make costly moves to receive advanced individual training. Thus, with decreasing Army accessions, the training base structure will decline in FY91/92, but the number of one station unit training companies will remain relatively constant. Another change to initial entry training is the implementation of the Army's Initial Entry Training Plan, which relies more on platoon-level training being conducted by drill sergeants.

Army Physical Fitness Program

Physical fitness is essential to combat readiness. The ability to meet combat requirements begins with the physical fitness of soldiers, their NCOs, and the officers who lead them. All soldiers, regardless of age, are involved in physical fitness training and are required to meet specific performance standards. The Army has developed a comprehensive physical fitness program that has increased the general fitness level throughout the Army. Physical fitness test scores have shown a positive upward trend since higher standards were established in 1986.

More than 7,500 graduates of the Master Fitness Trainer Course now assist unit commanders in developing individual and unit programs to meet the physical challenges of mission essential tasks. Training is conducted for both AC and RC units. An Army initiative to institutionalize Master Fitness Training into professional officer and NCO schools by FY91 will enhance an already dynamic physical fitness plan.

Specialized Individual Training

The Army emphasizes selecting and training soldiers in critical additional skills. The individuals use acquired skills to enhance the readiness of the units to which they are assigned. Over 3,600 soldiers attended the four-phased Ranger training program in FY90. The Airborne School trained over 25,000 soldiers, with an additional 1,000 attending the Pathfinder and Jumpmaster programs. Mobile training teams from the school trained an additional 500 Jumpmaster students.

The Army has a comprehensive physical fitness program.

Live chemical agent training, with a focus on increasing skills and confidence, is conducted for personnel involved in specialized chemical defense operations. Army chemical personnel and selected leaders receive this training at the self-contained Chemical Decontamination Training Facility at Fort McClellan, Alabama. This unique training facility also provides specialized training to other services and our allies.

The Foreign Area Officer (FAO) Program prepares some 140 officers each year for critical political-military positions. The training combines professional military experience, in-depth regional expertise, and foreign language proficiency. More than 60 percent of the FAOs are assigned to joint, combined, or DOD staffs. These officers have received a 3- to 5-year training program, including language training, graduate school, and a 12- to 24-month training assignment to the officer's region of concentration, to prepare them to contribute to the success of important U.S. political-military initiatives throughout the world. FAOs serve as military attaches, security assistance officers, political-military and intelligence analysts, and instructors in the Army school system.

Distributed Training

Distributed Training is an example of the Army's strategy for meeting individual training requirements by taking advantage of the latest technology. The objectives of the Distributed Training Strategy are to save resources, reduce the role and size of resident training, deliver training to soldiers when and where it is needed, enhance training opportunities, increase instructional quality, and improve standardization.

Distributed Training implements the guidance in the Army Long-Range Training Plan to reduce training costs by using off-the-shelf technology to reach more students with fewer instructors and less movement of troops and equipment. A variety of media -- print, video tape, magnetic, optical, on-line communication, and video teletraining -- will be used.

Current efforts are aimed at developing and funding a series of pilot projects to explore the concept, test the delivery media, and refine management controls. After the pilot projects have identified the best prospects for exporting training, the Army will focus initially on over 300 promising courses from Army schools, seeking to export successively larger amounts of resident instruction over time. The goal is to eliminate about one-half of the resident student course load by the year 2007, reducing training costs and making the training more accessible, especially for RC units.

Training Support

Training support includes those activities necessary to support military training. It encompasses programs such as automatic data processing, base communications, range operations and modernization, printing support, visual productions, and school evaluations.

Battlefield Training Simulations

The Army Family of Simulations (FAMSIM) Program uses computer war games to support company through corps staff and leadership training. FAMSIM assists with evaluation of internal staff training and standard operating procedures; prepares staffs for field training exercises; and facilities the development of command, control, communications, and intelligence procedures. The use of computer-driven command post exercises against a "thinking opponent" provides commanders and their staffs a "free play," real-time exercise that stresses the staff and fosters coordination without requiring troops in the field. Recorded information can be replayed to enhance after-action reviews. The electronic capability to link widely based units into one training exercise enables headquarters to exercise together without leaving their respective home stations.

Computer simulation is an important training tool.

The program includes a variety of simulations. JANUS is a simulation exercise being fielded to support platoon and company training. Battalion/Brigade Battle Simulation has been fielded to support battalion exercises and will be tested in support of brigade exercises. Corps Battle Simulation supports division and corps staffs. The final enhancements to the interim software are scheduled for delivery in FY91. The Combat Service Support (CSS) Training Simulation System is being fielded now to provide CSS battalion command and staff training; it will ultimately be linked with corps simulation exercises. A simulation called Panther is being developed to provide focused simulation support for low-intensity conflict training. These efforts are coordinated under the FAMSIM Master Plan, the Army's capstone planning document for the development and fielding of command and control simulations. Final approval of the plan is scheduled for FY91.

Training Devices and Simulators

The Army enhances combat realism and builds combat proficiency by using a wide array of training simulators and devices. Tough, realistic training must replicate in peacetime the threats, sights, and sounds of the battlefield. Simulators and devices help produce the closest possible replication of the battlefield environment outside of combat. They give soldiers the physical, mental, and emotional conditioning to screen out those portions of the battlefield environment that would distract them from accomplishing their mission in actual combat.

In the field, the Simulated Area Weapons Effects System, the Multiple Integrated Laser Engagement System II, and the Air-to-Ground Engagement Simulator II offer the Army state-of-the-art technologies for battlefield replication. The Army remains committed to doing this safely, with minimal impact on the environment and at an affordable price. In garrison, simulators promote the development of critical warfighting skills while minimizing costs. The Close Combat Tactical Trainer will provide units the opportunity to refine their wartime skills in a force-on-force environment without incurring the costs of going to the field and without adverse environmental impacts. Simulation networking provides a means of teaching leadership skills in garrison where commanders can continue to drill at minimum cost. The use of simulators to train basic warfighting, combat support, and combat service support skills enables soldiers to enter periods of field training at a sufficiently high training level to ensure maximum learning of more advanced skills.

Range Modernization Program

On today's and tomorrow's battlefields, a first-round miss may preclude a second chance to fire. The Army's modern live-fire ranges allow the training and testing of soldiers and crews on their weapon systems to Army marksmanship and gunnery standards. The ranges provide diverse target arrays and can replicate a variety of scenarios under near-combat conditions. Many ranges use subcaliber ammunition and are compatible with Army direct-fire training devices, such as the Multiple Integrated Laser Engagement System. This capability provides good levels of training while holding costs down, thus permitting soldiers and units to repeat training events frequently.

Computerized range complexes enhance training effectiveness.

Reserve Components (RC) Training

A comprehensive RC Training Strategy was formalized by the Army in 1989 to enhance the ability of RC units to meet their wartime requirements. Significant strides have been made in maximizing the use of limited RC training time. This strategy established the RC training goal to produce Reserve Component units trained to mobilize, deploy, fight, and win upon commitment. The goal is supported by six major objectives that focus on key areas of combat preparedness. These objectives are:

- To attain and maintain 85 percent of the soldiers with proper skills at battalion level;

- To attain and maintain command and staff proficiency at all levels;

- To attain and maintain battalion-level proficiency on mission essential tasks using a battle-focused approach;

- To attain and maintain training readiness;

- To attain and maintain the capability to mobilize and deploy; and

- To build, through short- and long-range training plans, unit capability to execute wartime missions.

Implementation is built upon the five dimensions of training: soldier, leader, and unit training; training support; and training management. The principal focus is on developing and maintaining task proficiency at battalion level and lower. With the establishment of an RC Training Strategy, commanders have an enhanced capability to develop and execute training to meet specific, measurable objectives.

The RC Training Development Action Plan (RC TDAP), adopted in May 1989, implements the RC Training Strategy. The plan is the primary source document used to focus actions for improving RC training readiness. Currently, it identifies 37 issues that impact on the conduct of realistic and effective training in the RC. The RC TDAP provides Headquarters, Department of the Army, guidance and milestones to address these issues. The current emphasis is on initiatives that improve military occupational speciality (MOS) qualification levels, support leader development, and enhance inactive duty training.

RC Training Activities

In 1990, the Army finished a 4-year program of developing exportable MOS training packages for use by RC training institutions, such as ARNG academies, Army Reserve Forces schools, and regional training sites. These institutions also began using the Army's system for providing training resources to units based upon their training requirements. This requirements-driven automated quota-management system and its associated requirements-development processes will more efficiently align RC training needs with available training opportunities.

A test of a video teletraining pilot program, part of the Army's Distributed Training Strategy, will start in FY91. This pilot program focuses on providing training to USAR and ARNG noncommissioned officers at various sites in Kentucky. The Common Leader portion of the Basic NCO Course (BNCOC) is being used for this pilot. This project will help shape the implementation of the Army's Distributed Training Strategy for the RC.

The Minimum Essential Equipment for Training (MEET) program is designed to provide RC units with essential equipment for training on their critical wartime tasks. It has been quite successful in contributing to the enhancement of Reserve Component readiness levels, as fewer units are reporting readiness problems because required equipment is not available for training.

A regional maintenance training program was developed in 1985 to ensure that RC maintenance personnel receive adequate training. Of the originally planned 21 Regional Training Sites-Maintenance (RTS-Maint), 17 are now open for training. Completion of the plan with permanent facilities depends on lifting the FY90/91 construction freeze. RTS-Maint provides decentralized hands-on training opportunities for the large proportion of maintenance soldiers and units who serve in the USAR and ARNG. Additionally, to export training to locations nearer the soldier's home station, in March 1990 the Army approved a proposal to offer MOS qualification courses, BNCOC, and the Advanced NCO Course in maintenance specialities at these sites. The Army is tailoring equipment lists for each site to best suit the particular mix of specialities in each region served by the facilities.

Realistic training opportunities in mass trauma for Army medical specialists are limited in the civilian sector. Regional Training Sites-Medical (RTS-Med) provide hands-on training opportunities to the 68 percent of Army Hospital units that are in the RC. Reliance on these units in the buildup of Army medical capability for Operation Desert Storm underscores the requirement to ensure high states of readiness for these units. RTS-Med include a small full-time cadre, state-of-the-art diagnostic and treatment training devices, and Deployable Medical Systems. RTS-Meds have been built at three locations, and one is under construction. Construction at three additional sites has been postponed due to the FY90/91 construction freeze.

In much of the urban and rapidly developing suburban United States, maneuver room for military training is scarce or completely unavailable. In recent years, we have resorted to fielding simulators and subcaliber devices to give our soldiers an experience that closely resembles actual maneuver and fire support. The High-Technology Training Center (HTTC) at Fort Dix, New Jersey, is equipped with training devices and simulators not available at most RC unit home stations. It provides individual, small-unit, and battle-staff training to RC soldiers. During FY90, 58,000 man-days of training were provided. For FY91, 105 course offerings are scheduled in skills ranging from infantry, armor, and field artillery to nuclear, chemical, and biological defense. Sixteen cadre provide full-time staff support to training at the HTTC.

The Eastern and Western ARNG Aviation Training Sites (AATS) provide a cost-effective, efficient, and professional environment for training ARNG aviation personnel. The Eastern AATS specializes in individual training in utility, cargo, and fixed-wing aircraft. In FY90, 11,316 aircraft hours were flown. The AH-1 Flight Weapons Simulator and UH-1 Synthetic Flight Training System flew 20,303 simulator hours, for a total of 31,619 aircrew flying hours. The Western AATS specializes in individual training in attack and aeroscout aircraft and operates an AH-1 simulator. In FY90, the Western AATS flew 6,095 aircraft hours and 5,159 simulator hours, for a total of 11,254 aircrew flying hours. Both training sites are authorized to conduct instructor pilot training in selected aircraft.

The U.S. Army Research Institute (ARI)-Boise Element was established in 1985. Its mission is to improve RC training through applications of advanced technology. Projects completed through ARI-Boise include an RC soldiers' survey on improving inactive duty training, the first RC testing and evaluation of the Squad Engagement Training System, and distributive delivery of an Engineer Officer Advanced Course and RC-BNCOC through an interactive video teleconference. Under contract with ARI-Boise, Boise State University has developed a fully accredited Master of Science degree program in Training and Performance Technology. Courses are delivered through video teleconference to active and RC soldiers and DOD civilian employees.

An Armor Device-Based Training Strategy will be developed for use at company level in the near future. About 30 hours of Electronic Information Delivery System video disc courses also are being developed for training armor platoon leaders in tactical skills. Finally, revisions of rapid train-up armor training materials are under way to support readiness for mobilization.

Overseas Deployment Training (ODT)

ODT for the Reserve Components enables participating units and individuals to conduct mobilization and deployment activities, tailor peacetime training to wartime mission requirements, strengthen associations with active units, and improve readiness through opportunities for demanding, realistic training. Participants become familiar with the actual terrain and political environment in their assigned wartime theaters. In some instances, they contribute humanitarian assistance to developing countries while receiving valuable mission training.

In FY91 ODT will be reduced in scope largely because of Operation Desert Storm. Assuming a restoration to pre-Desert Storm operations, ODT for FY92 is projected to return to FY90 levels, which saw a total of 39,936 soldiers participate in this training.

Army commanders strongly support ODT, recognizing it as a highly visible demonstration of the Army's resolve to support overseas commitments to our allies and emerging nations in need of humanitarian assistance.

Training for the Future

Training over the next 30 years will undergo dramatic changes. The Army Long Range Training Plan provides planners and training developers guidance to shape training within the Total Army for the next 30 years. It provides the conceptual basis for subsequent plans that will direct how training will be conducted. It stresses the need for increased use of technology, the use of civilian educational institutions for technical training, and the concept of centralized training development and decentralized execution using distributed training.

Future training programs also will expand the use of simulations and simulators. Training at the operational level of war at simulation centers and the use of distributed training will be critical to maintaining readiness while reducing training costs.

Sustainment

Sustainment is the capability to support operational activities at the level and duration required to secure the operation's objectives. Sustainment programs that support training and peacetime activities are essential for the Army to maintain combat readiness. The Army's ability to carry out our strategic roles also depends heavily upon sustainment programs that allow units to deploy rapidly and conduct a range of operations of uncertain duration in a wide variety of environments. The value of maintaining sufficient wartime sustainment capabilities has been clearly proven in Operation Desert Storm. This section discusses Army programs designed to sustain the Army's combat readiness as we restructure the force.

Logistical Support to Operation Desert Storm

Operation Desert Storm has presented numerous and unique challenges to the Army's logistics systems and capabilities. Strategic mobility, equipment readiness, support to other services, host nation support, security assistance, transportation, and industrial readiness are aspects of logistics that have been critical to the success of the operation to date.

Deployment of large numbers of personnel and movement of vast tonnages of unit equipment to an austere environment continue to be the most demanding logistical challenges to U.S. forces. The enormous strategic lift requirements during the initial phases of the operation greatly stressed limited airlift and sealift assets. Meeting these requirements necessitated activation of the Civil Reserve Air Fleet (stages 1 and 2), for the first time in history, and ships of the Ready Reserve Force. Operation Desert Storm clearly has reinforced the need for the United States to maintain a modern and ready strategic mobility capability, comprising both sea and air assets.

Establishment of critical life support systems for soldiers deployed in a bare-base environment also has proven to be a significant challenge to the Army's logistical capabilities. Initial support systems for water purifi-

The movement of soldiers and materiel for Operation Desert Storm presented a demanding logistical challenge

cation, distribution, and storage as well as rations, tentage, lumber, and shower systems were obtained from Army pre-positioning ships located at Diego Garcia in the Indian Ocean. The Army has relied on host nation agreements to provide additional support for fuel, rations, facilities, and transportation. More than nine countries have provided assistance in kind or additional lift capacity. These requirements now are supported fully by deployed contracting officers specially trained for contingency operations. Additionally, rations, laundry units, and sundry packs continue to be moved to theater from U.S. and overseas locations.

Initial sustainment of forces in Saudi Arabia stressed the Army's logistical and planning capabilities. The tactical situation dictated that initial lift priority be given to the movement of combat forces and their organic equipment and basic load of supplies. Hence, combat service support units could not be moved until a significant number of combat units had deployed already. Combat service support units from the Reserve Components proved invaluable in meeting logistics sustainment requirements within theater. Additionally, in an effort to fill anticipated supply requirements, the Army, in coordination with the Army Materiel Command and the Defense Logistics Agency, developed a series of resupply packages. Packages were tailored for each of the major force elements and were designed in two configurations, a small package for quick resupply by air and a larger resupply package for shipment by sea. Resupply packages were designed to be called forward by the supported units as required.

Wartime supply automation support took a major step forward with the deployment of a new system, the Objective Standard Army Retail Supply System (SARSS-O) on the Corps/Theater Automatic Data Processing Service Center, Phase II (CTASC II). SARSS-O provides timely, continuous monitoring of corps logistical assets. The CTASC II is a new multifunctional commercial minicomputer designed to run software for supply, maintenance, ammunition, movements, personnel, and medical management systems.

Industrial readiness has played an important role in the initial phases of the operation. To obtain increased quantities of certain types of ammunition, rations, uniforms, and critical chemical defense equipment, many U.S. corporations accelerated production to meet the expected requirements of Operation Desert Storm.

On October 26, 1990, the Army became the executive agent for subsistence, supporting all U.S. forces in Saudi Arabia. The Army is responsible for requisitioning, receiving, accounting for, storing, and distributing all operational rations in the theater.

Army Medical Programs

The growing number of countries capable of employing chemical, biological, and other high technology weapons and the continuing threat to effective operations posed by endemic diseases and environmental extremes collectively reinforce the need for effective wartime medical products and technology.

Army medical programs support our soldiers and commanders by providing medical technology, technical information, and combat medical materiel essential to sustain readiness. Visibly effective medical countermeasures maximize human performance in combat and across environmental extremes by blunting the effects of chemical and biological weapons, protecting against infectious diseases in all geographic regions, and conserving the fighting strength through improved casualty treatment capabilities.

Development, acquisition, and fielding of medical countermeasures to chemical and biological threats were accelerated to support Operation Desert Storm. Examples of assistance by the medical research and development community include an improved skin decontamination kit, decontaminable litters, chemical protective patient wraps, contact lenses for Apache helicopter aviators, and laser protective eyewear. Drugs and vaccines effective against infectious diseases and chemical and biological agents also were provided. Current biomedical expertise and instruction, particularly in the areas of desert operations; endemic diseases; biological and chemical threats;

Medical programs aim to save lives and conserve the Army's fighting strength.

chemical casualty management; diagnostics; and prevention, treatment, and management of combat stress were provided rapidly by teams of military medical scientists deployed to embarkation points and the theater of operations. Soldier-scientists assigned to the Medical Research and Development Command are still providing state-of-the-art, highly technical preventive medicine and casualty treatment assistance to U.S. and allied forces participating in Operation Desert Storm.

Experience during Operation Desert Storm and studies of medical logistics support for the Army's major warfighting plans show that medical-grade oxygen and resuscitative fluids continue to be major claimants on strategic and tactical lift capability. The development and fielding of the Field Medical Oxygen Generation and Distribution System will produce medical-grade oxygen in theater. This will reduce the strategic 60-day lift requirement for a 400-bed hospital from 14 C-141 aircraft sorties to one. Similarly, the development and fielding of a Resuscitative Fluids Production System will reduce the medical fluid logistical requirement from three C-141 sorties to one. Improved resuscitation devices, sterilizers, and hand-held x-ray machines will serve to enhance both the efficiency and effectiveness of medical support units.

Field Service Support Systems (FSSS)

The overall FSSS objective is to improve the combat readiness of the soldier in the field by enhancing morale, welfare, and overall quality of life. Field Service Support Systems upgrades continue to enhance laundry (field and garrison), mobile showers, clothing repair and exchange, field bakery, and delousing sprayers associated with mobile shower units.

An example of the FSSS effort is the development of the Laundry and Decontamination Dry-cleaning System (LADDS), a laundry system that virtually eliminates any water requirement while significantly increasing output. The LADDS also will provide the capability to decontaminate chemically contaminated individual equipment and clothing. As an interim measure, the M85 Laundry Trailer currently is being fielded to replace the antiquated M532 Laundry Trailer. The new system has been adapted to house a water recycling system, which reduces water use by 40 to 50 percent (a 3,000-gallon saving per unit per day). It is being used extensively in support of Operation Desert Storm.

The Army Field Feeding System (AFFS)

The objective of the AFFS is to provide soldiers three quality meals per day. These meals will either be individual Meals, Ready to Eat (MRE), or group meals, such as Tray Rations (fully cooked entrees, starches, vegetables, and desserts), B Rations (dehydrated food components), and A Rations, which consist of perishable (fresh or frozen) and semiperishable (canned) items. A combination of all these meals is currently being used to support the deployed forces on Operation Desert Storm. Two new items have been developed to supplement these operational rations. Pouch bread is a shelf-stable bread that can be used with the MRE, the Tray Ration, or the B Ration when commercial or fresh bread is not available. The Ration Supplement Flameless Heater is a water-activated chemical heating pad developed to heat the MRE. The AFFS provides the commander battlefield flexibility to adjust feeding to the tactical and logistical situation.

The Mobile Kitchen Trailer and the Kitchen Company Level, Field Feeding are the primary items of equipment of the AFFS. The former is used to prepare Tray Rations, B Rations, and A Rations, while the latter is used to prepare Tray Rations and warm beverages. The Army has programmed sufficient funding through 1996 to support both requirements.

As a result of Operation Desert Storm, requirements for operational rations have increased dramatically. Tray Ration production has increased to almost four million meals per month. Production of pouch bread was accelerated to provide 20 million pouches between October

1990 and mid-January 1991. Flameless Ration Heating Pad production was increased to 3.6 million pads for delivery between October 1990 and February 1991.

Tactical Water Support

The tactical water support program is an important ongoing effort designed to provide the Army with the capability to support our soldiers.

Army divisional units deploying to Saudi Arabia are providing their soldiers with potable water with their organic state-of-the-art tactical water support equipment. Each division deployed on Operation Desert Storm has the capability to purify water with the 600 gallon per hour Reverse Osmosis Water Purification Unit (ROWPU). The ROWPU can produce potable water from fresh, salt, brackish, or nuclear, biological, and chemical contaminated sources. Water is stored in 20,000- and 50,000-gallon fabric tanks located in rear areas. Division and brigade distribution systems include 3,000-gallon semitrailers and the Forward Area Water Point Supply System, which consists of six 500-gallon drums and a 125-gallon-per-minute pump. Battalion and company water trailers are used to support forward-deployed soldiers.

Several years ago the Army pre-positioned equipment and supplies aboard ships in the Indian Ocean to support U.S. Central Command in the Persian Gulf region. These ships contained a variety of vital equipment, including water equipment, to support a force initially deploying into the region until combat service support units arrived. As Operation Desert Storm began, these ships were moved into the Persian Gulf and provided the deploying units with the needed water equipment.

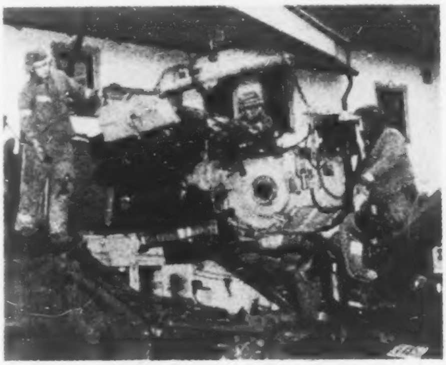
The pre-positioned ROWPUs operated by the water purification teams are 150,000-gallon-per-day units. In addition to these ROWPUs, there are two 300,000-gallon-per-day ROWPU barges located offshore in the Gulf. These ROWPUs fill storage systems that range from 20,000 gallons to 1,600,000 gallons capacity to provide support to deployed divisions. Bulk distribution is accomplished by both the tactical water distribution system and 3,000- and 5,000-gallon semitrailer mounted fabric tanks. Each tactical water distribution system consists of 10 miles of 6-inch hoseline and six 600-gallons-per-minute pumps and has the capability of transporting in excess of 600,000 gallons of water per day. Toward that end, the Army will continue to procure water support equipment in FY92.

Bulk Petroleum Distribution

The Army is responsible for inland bulk fuel distribution for all services. Both the deployment and sustainability of U.S. land-based forces are dependent upon adequate fuel distribution capabilities. This is particularly true in areas where the infrastructure is limited. Tactical petroleum pipelines and storage systems, mobile labs, and petroleum barges designed for use in an undeveloped theater have been deployed to support Operation Desert Storm. Additional systems, including "refuel on the move" kits and mobile petroleum laboratories also have been deployed.

Reparable Spares

Reparable spares are predominantly high-dollar secondary items that are reparable at Army depots. Examples are engines, transmissions, and circuit card assemblies that are components of weapon systems and equipment.



Reparable spares, such as engines, are now procured through the Army Stock Fund.

Until recently, these items were funded in the Army procurement accounts and were issued free to Army customers. One of the Defense Management Review initiatives calls for the procurement of all reparable spares through the Army Stock Fund. Partial implementation began on October 1, 1990, with full implementation projected for FY93. Beginning on April 1, 1992, Army customers will use their operation and maintenance funds to purchase replenishment reparable spares from the Stock Fund. This change is expected to achieve savings by making units more cost conscious when ordering parts.

Preferred Munitions

Preferred munitions refer to ammunition given high priority for production and stockpiling. Preferred munitions requirements are based on the capabilities projected to defeat a specific threat and are updated continuously. When a new or improved munition is added to the list, it will normally take several years of production to build the stockpile to sufficient quantities to meet the new requirement. Until the required stockage levels are reached, older munitions are used as less effective substitutes. New munitions are normally filled first to the theater with the greatest priority, often leaving CONUS reserve assets in limited quantities during the first few years of production.

With the rapid increase in requirements for Operation Desert Storm, CONUS and European stocks are being used to support the operation. Older munitions that are effective against the threat in Saudi Arabia supplement preferred munitions stocks. Accelerated production, already in the planning stages, will reduce shortfalls; however, the capability to rapidly increase stockpiles is limited.

Some preferred munitions that are being fielded for the first time in support of Operation Desert Storm include the Army Tactical Missile System, which gives the Army a long range surface-to-surface capability, and the Patriot Anti-tactical Missile Capability-Level 2 air defense missile designed to provide defense against theater ballistic missiles.

Clothing and Individual Equipment

The Army wants to ensure that soldiers are provided with functional, lightweight, and durable clothing and equipment. As a direct result of soldier comments during Operation Desert Storm, the desert battle dress uniform (BDU), field jacket, and boot are being modified to improve comfort and camouflage protective qualities for both day and night use. Existing production lines of woodland BDUs have been converted into desert BDUs, and delivery of 1 million sets of desert BDUs will occur between December 1990 and June 1991. Other surges include 300,000 desert field jackets, 645,000 battle dress overgarments, 112,000 ballistic-laser protective spectacles, and 300,000 desert boots.

Other improvements to the soldier's field gear include the hot weather battle dress uniform; ballistic eye protection; intermediate cold, wet boot and gloves; explosive ordnance disposal body armor; the individual, tactical load-bearing vest; the large field pack with internal frame; and the extended cold-weather clothing system. Future efforts include cooling equipment for combat vehicle crewmen, a lighter-weight helmet, and improved handwear and footwear.

The Army's objective is to upgrade and maintain a quality force by increasing the readiness, effectiveness, and survivability of the individual soldier through improved state-of-the-art clothing and equipment that lightens the soldier's load while increasing weather resistance and ballistic protection. Enhancements also are being made to the green service uniform, green shirt, all-weather coat, and windbreaker.

Supply Program

The major challenge when setting up the air line of communication for new operational theaters is establishing priorities for cargo competing for precious aircraft space during early stages of troop deployment. The Army standard distribution system demonstrated its effectiveness in Operation Desert Storm's massive troop deployment. Savings and benefits of the Army system include less equipment down time, cost avoidance from smaller supply distribution investments, and reduced material handling at intermediate transportation terminals.

The U.S. Transportation Command has established a "Desert Express" to move the very highest priority critical repair parts for Operation Desert Storm. Combining commercial express services, daily non-stop flights to Saudi Arabia, and intra-theater distribution means (military air or truck), this system offers "door-to-door" service in about 36 hours.

Depot Maintenance Program

The Army builds quality equipment and seeks to sustain quality by maintaining equipment to specific standards. To do so, the Army performs organic depot-level maintenance at one principal facility in Germany and nine located in the United States.

Annual Army sustainment costs for the depot maintenance program are approximately $1.5 billion. The depot program comprises materiel maintenance, funded at $952,000 for FY92, and maintenance support activities, which are funded at $515,000 for FY92. The major end-item repair and overhaul program is funded at 95 percent of the Army requirements for FY92.

In an effort to strengthen our maintenance program, the Army conducted a Reliability Centered, Inspect and Repair Only as Necessary (RC-IRON) test for the main battle tank. The results have been encouraging. Tanks put through the program averaged more than 1,000 miles of usage at the National Training Center. RC-IRON focuses on approximately 40 items that historically have presented maintenance problems and are difficult to repair in the field. Although Operation Desert Storm has disrupted our planned tank management, the RC-IRON test was a success. Implementation of the RC-IRON program will reduce the Army's operational and sustainment costs for the M1 tank over the next several years by performing preventive repairs in an industrial setting.

The Department of Defense has directed the services to streamline depot maintenance operations and to consolidate functions. Savings will come from consolidation of common support functions currently performed by one service for another, increased performance of military maintenance by the private sector, greater peacetime use of depot capacity, and divestiture of unneeded assets. A long-range plan for reducing the cost of depot maintenance operations is being developed.

Arrangements also have been made to ensure depot-level maintenance support for Operation Desert Storm. Special Repair Activities (SRA), combining civilian contractor personnel representing 35 contractors with existing military capabilities, are being organized for intelligence and electronic warfare items, communications and electronics items, tactical wheeled vehicles, and aviation. The SRA performs depot-level maintenance at lower than normal unit levels for selected equipment. The SRAs will shorten the repair time and the distance to the point of repair for broken items.

Transportation Program

The Army transportation program continues to support soldiers around the world. In anticipation of the withdrawal of U.S. forces from overseas, the Army imposed controls and restrictions on shipments in FY90, which resulted in some savings that were used as offsets for Operation Desert Storm transportation requirements

The Army will redistribute equipment based upon force structure and wartime mission changes.

While we have experienced other savings through better management, we anticipate funding shortfalls in FY91, due to increasingly constrained resources and anticipated requirements for force reductions from Europe. Proposed FY92 funding in the budget is adequate for one-time transportation costs to redistribute equipment based on anticipated force structure changes. Operation Desert Storm and any additional troop withdrawals will require congressional assistance to fund a revised transportation program.

Pre-positioning of Materiel Configured to Unit Sets (POMCUS)

POMCUS is equipment organized by company and battalion and stored in Europe. The purpose of POMCUS is to permit the rapid deployment of designated armored and mechanized units to Europe. Our goal is to have modernized equipment, including M1A1 tanks and M2/M3 fighting vehicles, in POMCUS. While the United States provides the equipment, the controlled humidity warehouses and other storage facilities are provided through the NATO Infrastructure Program.

The POMCUS program has served the United States well and has been a pillar of the Nation's commitment to reinforce Europe in the event of Soviet aggression. The current security environment may lead to changes in the POMCUS program over the next several years. Possible changes include the reduction of equipment prepositioned in Europe and/or the establishment of prepositioned sets of materiel to support contingencies in other theaters of operation.

Wartime Host Nation Support (WHNS)

With fewer forward-deployed forces and a greater reliance on CONUS-based forces for power projection, U.S. reliance upon friends and allies for support will increase. German WHNS will serve as the model for future agreements and programs with other nations. Germany has committed approximately 42,000 German Army reservists, organized into 63 units and dedicated to the support of USAREUR in crisis and war. These reservists provide the critical support required to accommodate U.S. rapid reinforcement and resupply at a considerable savings of spaces in the U.S. force structure. Requirements are being adjusted as the situation in Europe evolves.

Operation Desert Storm has demonstrated the critical need for WHNS agreements worldwide. WHNS of transportation, bulk petroleum, water, food, laundry, and facilities (ports, warehouses, hangars, offices, and quarters) made possible the rapid buildup of the U.S. presence in Saudi Arabia. This operational theater was transformed quickly from one in which the United States had a very limited presence tc one in which we have a large armored force. Expertise and programs developed in this operation will assist in modifying the German model for future theater contingencies.

Industrial Preparedness

During the reduction of forces, the United States must retain the capability to expand the force in the event of major regional contingencies or global war. Augmenting war reserves, maintaining the required laid-away industrial base, modernizing facilities, and striving to expand our industrial surge potential for critical munitions and components needed to maintain U.S. and allied forces in combat are essential components of this strategy.

Department of Defense policy guidance on the industrial base directs the services to establish and maintain the industrial base to support peacetime, wartime, and other contingency military requirements. The three major areas of emphasis are: maintenance of a broad, technologically superior industrial base; explicit consideration of the near-term and long-term industrial base implications of proposed programs and actions; and incorporation of the Graduated Mobilization Response concept in emergency preparedness plans and programs. Graduated Mobilization Response calls for planning mobilization actions in incremental steps to facilitate reaction to early warning. The concept is to take mobilization preparation actions prior to actual mobilization based on the available early warning.

The Army's industrial readiness strategy seeks to maintain a warm production base and a viable vendor and supplier base. To ensure a warm production base, production stretch-outs, foreign military sales, and direct sales are pursued, especially for those items requiring critical skills, technology, or materials. For new products, concurrent engineering and ease of production are emphasized early in the design work to create products compatible with factory processes. Design will focus on industries anticipated to be in existence in the long term for both military and commercial purposes, over industries exclusively dependent on defense needs. The Army will focus our manufacturing technology efforts on world-class technology improvements vital to the Army. Our capital investment policies will provide preferential support to lethal munition production facilities.

To maintain a viable vendor and supplier base, the Army's efforts will be directed toward reduction of production bottlenecks as well as the provision or sale of selected government plant equipment to small businesses to obtain contractual commitments to keep the facilities operating. In addition, industrial preparedness data collection will be improved and standardized for development, production, or post-production items. These initiatives aim to ensure a source of production for selected items and components during a crisis.

The industrial base also must be responsive to conflicts short of global war. Of particular importance is the capability to surge production of certain types of munitions that have higher anticipated usage rates. A graduated mobilization response accommodates these needs. The surge of troop support items and chemical defensive gear to support Operation Desert Storm is an example of such selective response.

The Army Manufacturing Technology (MANTECH) Program is designed to achieve needed economies while strengthening the capability and competitiveness of the defense industrial base. It promotes the application of proven science and engineering disciplines to the manufacture and remanufacture of Army materiel. The program's goal is to reduce materiel production and ownership costs, to increase worker safety, and to improve product quality.

VII. Modernization

The Army modernizes to enhance our warfighting capabilities.

Strategy for the Future

Modernization is the continuous process by which the Army develops and fields warfighting capabilities to deter war and, if necessary, fight and win. It is more than just the development and fielding of advanced weapons and equipment and the establishment of an associated production, mobilization, and sustainment base. Equally important are the development and implementation of modern doctrine, organizations, leader development, and training programs.

During the coming period of declining resources, the Army cannot afford to satisfy every requirement with a new weapon system. We must look to doctrinal and organizational solutions as well, and consciously weigh near-term risks and long-term gains. A coherent and integrated program that addresses each of these elements and matches our unparalleled technology with our future warfighting doctrine and organization has been designed to maximize the benefits from our scarce modernization resources as we reshape the Army.

The principal goal of the Army's modernization strategy is to enhance our soldiers' warfighting capabilities and ability to survive in combat by taking advantage of our technological strengths. We have focused our long-term modernization strategy to avoid technological surprise in an era of far greater uncertainty than we have faced in the past. We must pursue future modernization sufficient to ensure that our smaller Army has the lethality essential for victory on tomorrow's battlefields. To accomplish this in a period of reduced funding, we need to maintain a strong research, development, and technology base. We also must concentrate on selecting systems that take advantage of the quality of our soldiers, leaders, and technology, while exploiting our potential adversaries' weaknesses. The smaller Army of the future must have the best equipment our technological and industrial base can provide.

Today's armed forces are benefiting from the vision of previous Army, government, and congressional leaders. The major Army systems being employed in Operation Desert Storm today were developed over the past several decades. They are serving our soldiers extremely well. In one of the harshest environments in the world, all major Army ground and air systems are performing superbly and are exceeding Army readiness and performance goals. The Apache helicopter has been used extensively and was still exceeding Army readiness goals by more than 15 percent at the beginning of February. Two batteries of the Army

Tactical Missile System were initially fielded during Operation Desert Storm and have been employed very effectively against air defense targets in support of Apache and Air Force strikes. The now famous Patriot PAC 2 missile (also initially fielded during Operation Desert Storm) has achieved spectacular results. Additionally, the Air Force Joint Surveillance and Target Attack Radar System and the Army Interim Ground Station Modules (both early prototypes) have combined to provide effective wide-area surveillance and deep targeting support to coalition air and ground force commanders. The investments of the past have produced weapon systems that give our soldiers the lethality that they need to win today. Even in this era of fiscal pressures and international turbulence, we must maintain our vision and our long-term focus to continue to modernize for the future.

To sustain this long-term focus, we must actively manage risk in the near- to mid-term. We will accomplish this by concentrating on improving the deployability and staying power of our forces, by upgrading systems where high payoff in operational capability or support and personnel savings is evident, and by terminating programs that provide marginal improvements in warfighting or sustainability or are determined to be unaffordable.

Six principles guide our Modernization Strategy:

- *Field new equipment in priority, beginning with units that are first to fight.* In order that our soldiers have the best warfighting capability at the start of conflict, units most likely to face hostile fire or deploy early must be the first to receive new or upgraded equipment. This establishes a near-term priority for our contingency force and places added emphasis on improved deployability and sustainability. Displaced equipment from first-to-fight units is reissued to units with later potential for engagement or deployment so that these units improve simultaneously, rather than only at later stages of new equipment distribution. The least-capable equipment is thus retired earlier and in a logical manner;

- *Field deployable, sustainable systems that ensure the lethality and facilitate the survivability of the force.* Weapon systems must have overmatching lethality to defeat the enemy while preserving weapon system, unit, and individual soldier survivability. America's need for a CONUS-based force for crisis response and other immediate requirements worldwide demands that equipment be rapidly deployable and, once deployed, sustainable over time and distance in austere locations;

- *Field advanced warfighting capabilities before potential opponents.* The objective is to maintain a qualitative lead over opponents' warfighting capability and their ability to counter our capabilities. The Army research, development, and acquisition system must include mechanisms to introduce promising technology and improved operational capability quickly either through accelerated system development or immediate upgrades to systems already fielded;

- *Design equipment for future modernization.* Equipment can be modernized through replacement by systems of the next generation or by selective upgrading of fielded systems. Developing new equipment with built-in features to simplify and expedite upgrading in the future facilitates rapid, high-capability modifications, timely responses to changing threat, and improvement in maintainability and durability;

- *Modernize by force package.* The Army has designated three force packages to which units may be assigned according to their mission and their potential for employment. Force Package I contains forward deployed and contingency forces. Force Package II includes early reinforcing forces and war reserves. Force Package III incorporates follow-on reinforcing forces. This designation of forces according to the likelihood of early engagement or deployment in a crisis provides a logical framework for modernization sequencing, sizing, and rate. Equipment within a force package can be block modified or replaced en masse, retaining equivalent capability and compatibility for all units within a force package; and

- *Design, build, and distribute equipment to optimize readiness and training.* The Army must maintain preparedness while modernizing. Designing new equipment that requires little new equipment training for operators and maintenance personnel reduces training and readiness turbulence during fielding. Incorporating embedded training and other innovative training and maintenance features also reduces the personnel, training, and maintenance support resources required to sustain readiness over a system life cycle. This improves the readiness and training posture of the Army throughout the life of the equipment and improves efficiency of the training and maintenance functions.

Operation Desert Storm equipment losses notwithstanding, the restructuring and build-down of the Total Force will offer enhanced modernization opportunities across the Army as more modern equipment from inactivating units can be made available to units that will remain in our Total Force structure. In fact, most if not all Army organizations will be equipped to 100 percent of their equipment authorizations. Additionally, war reserves, POMCUS stocks, and readiness float requirements also should be filled with their designated complement of equipment, and training bases, such as the service schools, the National Training Center, and regional training sites-maintenance for the RC also will benefit from having adequate quantities of equipment for training and testing.

This restructuring plus recent Army modernization programs already have resulted in substantial improvements in equipment-on-hand (EOH) readiness throughout the Army. This important readiness indicator measures the degree to which a unit possesses the equipment necessary to accomplish its combat mission; it is now higher than it has been in 17 years. Since October 1985, Total Army EOH readiness has improved 31 percent. By the end of FY90, Active Army EOH readiness had improved 20 percent, the Army National Guard's had improved 36 percent, and the U.S. Army Reserve's had improved 36 percent. With the programed force build-down and current modernization plans, the improvement in EOH readiness is expected to continue, absent unexpectedly large losses in Operation Desert Storm.

Coordinated Modernization Plans

The Army's modernization strategy calls for coordinated plans, based on AirLand Battle doctrine, to assure our combat capabilities overmatch potential adversaries. Within these plans, the highest priority programs are those that correct immediate deficiencies on the increasingly lethal battlefields we may have to face in operations such as Operation Desert Storm, and those programs that provide the Army's essential future capabilities.

Our high-priority programs include those that provide for decisive close combat operations supported by synchronized deep and rear operations. For instance, the Army Tactical Missile System provides long-range fire support to destroy enemy capabilities and, thereby, set the stage for success in close combat. The Armored Systems Modernization (ASM) program is aimed at providing the next generation of armored combat systems incorporating significant ("leap-ahead") improvements in lethality and survivability for our smaller, future Total Force. Central to our future success in close, deep, and rear operations is the reconnaissance, maneuver, and fire capability of our armed Light Helicopter (LH) and the improved firepower and kill rate of the AH-64 Apache helicopter with the Longbow. Similarly, in combat against an increasingly capable array of potential adversaries' aircraft, our Forward Area Air Defense System provides close-in protection for our maneuver forces. Finally, the Army's Tactical Command and Control System will link all the Army's field capabilities and enable proper synchronization of combat power, intelligence, and logistical support.

Army modernization plans are focused on mission and functional area requirements. They include provisions for equipment acquisition, fielding, redistribution and retirement; force structure; and training development. Modernization plans also set program priorities, promote integration and commonality of effort within battlefield functional areas, and cover the Total Army. Each modernization plan encompasses systems or families of systems with similar combat functions (e.g., fire support, intelligence, wheeled vehicles, and armored forces). The plans are well thought-out, resource-constrained programs that are flexible enough to adjust to external factors, such as changing threats, technological breakthroughs or delays, revised funding or personnel levels, and evolving Army missions. Modernization plans cover a 20- to 30-year period and include a disciplined focus on goals and objectives, a detailed examination of requirements, and an analysis of cost-effective alternatives. Consequently, the plans incorporate the integration of new systems, product improvements to existing equipment, and procurement of nondevelopmental items (off-the-shelf commercial items) for the Total Army.

Army Technology Base Master Plan (ATBMP)

The ATBMP, first published in 1989, is the detailed projection of Army technology base programs covering a 15-year period. The November 1990 plan reflects the realities of the changing global threat and emphasizes technologies required to achieve a more versatile, deployable, and lethal future Army. It is the Army's strategic plan for the technology base, built on our vision of the future trained and ready Army and constrained by realistic funding limits. It serves as "top down" guidance to all Army technology base organizations and is a vital link between the Defense Technology Strategy and resource-constrained Army modernization plans.

The ATBMP stresses the technologies and demonstrations of equipment and materiel needed to develop and field the key operational capabilities for the future. The program is responsive to the Army's highest priority warfighting needs and is consistent with the Army modernization plans discussed in more detail below. The ATBMP also is an expression of the research community's best judgment about the additional technology opportunities that offer the highest payoff for future Army warfighting capabilities. The Army has identified 13 of these key emerging technologies that support the 20 critical technologies reported to Congress annually by DOD.

Army Aviation Modernization Plan (AAMP)

The Army Aviation Modernization Plan is a strategy for equipping the Total Army aviation force with a modern, capable, cost-effective warfighting fleet. The AAMP has been the basis for aviation aspects of Army long-range planning. It was revised in 1988 and 1990.

Key areas addressed in the AAMP include:

The Army's Aviation Modernization Plan includes upgrading some Apaches to the Longbow variant with Hellfire missiles.

- Initial operational capability of the Light Helicopter armed reconnaissance combat aircraft in FY98;

- Continued production and fielding of the UH-60, CH-47D, and specially modified aircraft to support special operations forces;

- Modification of the OH-58D Kiowa Warrior fleet with an interim armed reconnaissance capability;

- Modification of 227 AH-64 Apaches into the upgraded AH-64 Longbow variant with fire-and-forget Hellfire missiles;

- Sustainment of aviation investments and warfighting capabilities;

- Retirement from the Active and Reserve Components of obsolete aircraft to reduce operation and support costs; and

- Continuing application of appropriate safety modifications.

Armored Systems Modernization (ASM)

ASM is the master plan to modernize the Army's combined arms combat systems. This flagship program is an integrated family of complementary weapons that will form the backbone of our armored forces. It will ensure that the smaller Army of the future will clearly overmatch our potential foes.

ASM will provide the ground component of the future Army with significantly increased lethality, mobility, and survivability, using the best technologies America can produce. Key to ASM is the common heavy chassis. It will save money, enhance maintenance, and reduce the logistical burden.

The four heavy-chassis variants within ASM are the Block III Tank, to replace the M1 Abrams series tank; the Advanced Field Artillery System, superseding the M109 series howitzer; the Combat Mobility Vehicle, in place of the current Combat Engineer Vehicle; and the Future Infantry Fighting Vehicle, which will supplant the present Bradley Fighting Vehicle. The two medium-chassis components of ASM are the Line-of-Sight Antitank, displacing the Improved Tow Vehicle, and the Future Armored Resupply Vehicle-Ammunition, a greatly improved substitute for the antiquated M548 cargo carrier in artillery units.

As a replacement for the aging M551 Sheridan, the Army is aggressively pursuing an armored gun system, to be fielded in airborne and motorized contingency force units. This urgent requirement will be met by an integrated nondevelopmental item acquisition strategy.

Armor-Antiarmor Modernization Plan (A3)

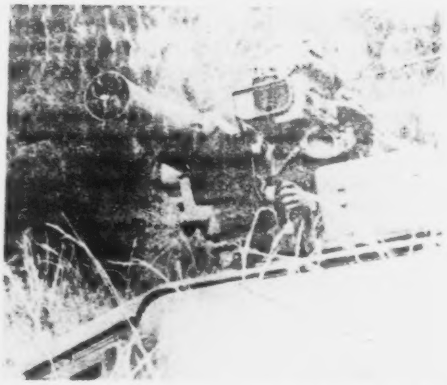
The force with superior armor has a distinct advantage on the modern battlefield. The purpose of the A3 Modernization Plan is to ensure the continued lethality and survivability of Army forces. The plan seeks to modernize the A3 forces of the Army to improve our warfighting capabilities within existing resource constraints. The plan covers all forces (e.g., engineers, field artillery, etc.) and weapon systems (e.g., antitank missiles and mines) that can defeat enemy armor. Key aspects of the plan include continuous modernization from both a qualitative and quantitative perspective, affordability based on level funding, control of combat vehicle age and operating costs, and exploitation of technological opportunities. The Army's armor-antiarmor strategy also assesses the most promising technological options and develops those that prove to be successful.

The Army's A3 strategy seeks to:

- Set priorities for materiel developments to meet critical battlefield deficiencies and for technological opportunities that offer true "leap-ahead" capabilities;

- Establish an affordable fallback system by using current capabilities, product improvements, or nondevelopmental items for each high-technology effort, providing the minimum funds necessary to keep the fallback position viable until more desirable technologies are proven;

- Establish decision points in the technology devel-



The Army's armor-antiarmor strategy will ensure lethal and survivable antiarmor capabilities.

opment plan that permit timely termination of concepts that are not viable;

- Require and fund a vigorous proof-of-principle program; and

- Rapidly equip units with the first proven technology when a serious battlefield deficiency exists.

The A3 Modernization Plan is the foundation of our efforts to take advantage of technological advances in this area. It is a Total Army modernization plan that integrates all Army A3 efforts into affordable program packages. It makes allowances for evolutionary doctrinal advances; refines organizations and designs that incorporate advanced technologies; and focuses on specific hardware advances in lethality and protection of the main battle tank, in kinetic and chemical energy projectiles, and in armored fighting vehicles.

Army Intelligence and Electronic Warfare (IEW) Modernization Plan

The Army IEW Modernization Plan serves as the foundation of the Army's effort to develop and field smaller but increasingly robust intelligence, electronic warfare (EW), and reconnaissance, surveillance, and target acquisition (IEW/RSTA) systems. These systems will be critical for the versatility and lethality of our smaller, predominately CONUS-based force. Based on AirLand Battle doctrine, the plan delivers an IEW/RSTA capability that satisfies the commander's diverse intelligence requirements for close, deep, and rear operations across the operational continuum. IEW systems support armored, light, and special operations forces from separate maneuver battalion through echelon above corps. These systems must provide the commander with a comprehensive picture of the entire battlefield while locating specific high-value targets within the accuracies required of our most sophisticated weapon systems. The plan focuses on common, modular, technologically advanced, multimission IEW/RSTA equipment based on an open-systems architecture. We also are pursuing joint programs in this area, including the Joint Surveillance and Target Attack Radar System with the Air Force.

Army Command and Control Modernization Plan (C2 Mod Plan)

Effective command and control is essential to optimize the combat power of units, weapon systems, and support systems. The C2 Mod Plan charts the course for C2 modernization for the Total Army through the year 2006. It describes how the Army's command and control hardware, software, doctrine, and training will be modernized. The plan covers C2 from the small unit through the corps and provides for interfaces with joint, combined, and strategic C2 systems.

While funding and force structure are constrained in the plan, it does provide commanders with the tools and technology to improve the command and control of their forces. The plan provides guidance to users on the Army's modernization approach, systems, and fielding schedules. The intent is to harmonize the many systems that form the Army Tactical Command and Control System. The initial C2 Mod Plan will be approved for implementation beginning in FY92.

Air Defense Modernization Plan

The Air Defense Modernization Plan is a disciplined approach to providing air defense support to Army forces. The current version of the plan fields the Forward Area Air Defense System to protect armored forces and gives light forces a substantially improved capability to deploy with increased firepower. It supports AirLand Battle by protecting corps and echelons-above-corps assets with organic air defense organizations. The plan provides an increased anti-tactical missile capability for contingency forces. Technology is focused to provide block improvements to weapon systems; improved identification capabilities; and command, control, and intelligence integrated with joint forces and allies across the battlefield.

Fire Support Modernization Plan

Effective fire support will remain a prerequisite for success in combat wherever Army forces are deployed. The Fire Support Modernization Plan represents a fiscally constrained, near- and long-term plan to improve warfighting capability for close support, counterfire, and

The Army's Tactical Missile System provides a deep fire capability.

deep attack. The plan continues the fielding of the Multiple Launch Rocket System (MLRS), initiates fielding of the Paladin 155mm howitzer (formerly the Howitzer Improvement Program), and completes development and begins fielding of Sense And Destroy Armor Munitions for the 155mm and MLRS weapon systems.

Additionally, the plan places a very high priority on the development of the Advanced Field Artillery System and supports continued development of a deep fires capability. The Army Tactical Missile System is the first of several such systems to be fielded. As refinements are made, the Fire Support Modernization Plan will provide adjustments for light forces fire support, smart munitions, and fire support coordination.

Engineer/Mine Warfare Modernization Plan

As an integral component of the combined arms team, the combat engineer's focus is on mobility, countermobility, and survivability -- freeing the force to maneuver at will while simultaneously reducing the enemy's ability to maneuver. Engineer mobility and countermobility capabilities must be balanced to provide maximum effectiveness. Currently, the Army's countermine capability is inadequate. Efforts to address this shortfall have been ongoing since the early 1980s and have resulted in some successes. Assessments of Operation Desert Storm requirements indicate that the mobility enhancement capability of the Army's detection and breaching assets needs improvement. The Engineer/Mine Warfare Modernization Plan identifies critically needed capabilities required to defeat the full spectrum of mine threats. The Combat Mobility Vehicle, a component of ASM, will provide a significant boost to our breaching capability, and the Standoff Minefield Detection program will fill the critical mission of locating mines at a standoff distance.

Efforts also are ongoing to improve the Army's countermobility capabilities. The development of scatterable mines is the highest priority among our countermobility projects. The Family of Scatterable Mines includes the multiple-delivery mine system (Volcano), which we will begin fielding in FY91, and the Wide Area Mine, currently in full-scale development.

Finally, the M9 Armored Combat Earthmover (ACE) is providing front-line earthmoving (mobility, countermobility, and survivability) support to combat forces. Its mobility and increased protection, coupled with its ability to rapidly construct fighting positions and obstacles, make it an important asset to the field commander. For these reasons, the M9 ACE has been fielded to Army units in Saudi Arabia.

Tactical Wheeled Vehicle Modernization Plan (TWVMP)

Tactical wheeled vehicles are vital for sustaining the operations of U.S. forces, particularly when operating in austere environments with limited infrastructure. The 1989 TWVMP is a road map for the continuous modernization of the Army's TWV fleets through the year 2020. It encompasses procurement, distribution, retention, and retirement policies designed to ensure that the fleets will meet operational requirements while reducing peacetime costs.

The plan streamlines Army truck programs by reducing vehicle types through a family concept. The reduction of the light fleet to a single vehicle type is under study. The Family of Medium Tactical Vehicles (FMTV) program currently is in the selection process to determine a contractor to produce the vehicles. FMTV will demonstrate the advantages of commonality inherent in the family concept. However, because of the large quantities of trucks to be procured and the age of the current fleet, a service life extension program will be required to upgrade the current medium fleet. The program will permit the Army to reduce operation and support costs while extending the life of current assets until they can be replaced by the FMTV.

The award of the Palletized Load System contract, in September 1990, is the first step in establishing the Family of Heavy Tactical Vehicles (FHTV). Significant commonality between the FHTV and current vehicles is assured, since the current 10-ton Heavy Expanded Mobility Tactical Truck and the new Heavy Equipment Transporter are produced by the same manufacturer.

The aggressive vehicle retirement program of the TWVMP reduces total fleet inventory by eliminating trucks that are excess or are too costly to maintain. Vehicles identified for retirement are first offered to Foreign Military Sales and then to the Defense Reutilization Marketing Service for disposal. The program is proving to be a major success, with over 22,000 vehicles retired through the end of FY90.

Material-Handling Equipment Modernization Plan (MHEMP)

Material-handling equipment is a critical element or the Army's warfighting support and sustainment structure. The MHEMP will guide the management of tactical material-handling equipment, focusing on the improvement of the fleet through the year 2020. It considers the on-board material-handling equipment of the Army's newest tactical trucks and the Palletized Loading System and focuses on improving the versatility and deployability of material-handling support on the battlefield -- support that takes on increased significance in austere theaters.

The centerpiece of the MHEMP is the fielding of the All-Terrain Lifter, Articulated System (ATLAS) to replace current rough terrain forklifts. ATLAS is a self-deploying vehicle capable of 40-miles-per-hour road speed, thus reducing the normal deployment equipment, such as trucks and lowboy trailers, required to displace or convoy forklifts to a new support location on the battlefield.

Army Integrated Ammunition Modernization Plan

The Army Integrated Ammunition Modernization Plan, which reflects FY89 congressional guidance, was submitted to Congress in January 1990 and covers the 15-year period from FY92 through FY06. It is a summary of the plans, procedures, strategies, and rationale being used to translate the Army's conventional ammunition needs into a viable, affordable, and responsive program. The plan also considers the conventional ammunition programs of the Navy, Marine Corps, Air Force, and other agencies in the assessment of the ammunition production-base workload.

As an annex to the plan, an Ammunition Production Base Study will provide the strategy for downsizing and consolidating the current ammunition production base to eliminate inefficiencies. The Army plans to retain a smaller active ammunition production base that will focus on propellants, explosives, and hazardous loading operations, while placing more reliance on the commercial sector for nonexplosive ammunition components.

The Army's ammunition procurement program supports fielding of modernized weapon systems and ammunition, supports training, builds war reserves stocks, and maintains the production and mobilization base. As in FY91, the FY92 program will make limited progress in building war reserves stocks but will not fully support training requirements. The impact of Operation Desert Storm is not known as of the writing of this statement.

Army Medical Modernization

The modernization of Army health facilities is continuing with a program that replaces or renovates aging hospitals and health and dental clinics. The Army's Medical Department provides health care from facilities that are, on average, older than those of our sister services and the civilian sector. A few new facilities have been completed in the last 10 years; however, congressional support is required to fund the upgrade of Army health facilities to a state of modernization commensurate with their civilian counterparts.

Science and technology base research conducted by the Army serves as the basis for many elements of medical modernization. Such research identifies and addresses hazards to soldier health and safety in a variety of military scenarios and environments. Medical research and development efforts support a number of Army modernization plans as well as the Army Technology Base Master Plan.

The Army's long-range medical force structure strategy, Medical Force 2000 (MF2K), is based on Army Medical Department doctrine for support of AirLand Battle and focuses on conserving the human dimension of the commander's combat power. MF2K tenets emphasize health maintenance, standard modular hospital designs, enhanced medical training initiatives, far-forward resuscitative care, streamlined organizations within medical functional areas, and exploitation of high technology. It incorporates various ongoing initiatives, such as equipping the current hospital force with Deployable Medical Systems (DEPMEDS) and the Theater Army Medical Management Information System, which is designed to provide timely and accurate medical information to manage the medical force in the future.

The DEPMEDS fielding program has been accelerated based on proven enhancements to the deployed medical support system. The DEPMEDS standardize the use of the latest medical technology and equipment, expendable supplies, and major nonmedical support equipment. Standard medical modules improve medical unit mobility and flexibility to support changing mission requirements. The hospitals can be deployed under all climatic conditions.

Theater Army Medical Modernization Information Systems use the standard Army computer system and have greatly improved the management of medical evacuation and logistics functions in coordination with other services. The value of the systems to the Army in Operation Desert Storm was evident in their ability to be deployed rapidly to respond to a dynamic environment and to perform a variety of essential automated medical requirements.

Other medical modernization programs also have contributed to the versatility and lethality of the forces deployed for Operation Desert Storm. Acceleration of the Army's vaccination program and command emphasis on chemical casualty treatment and decontamination training have greatly improved soldiers' confidence in their ability to perform and survive on the modern battlefield. Likewise, the integration of combat stress control principles at all levels of leadership training as well as the deployment of mental health combat stress control teams has both enhanced the capability of the soldier and neutralized fear as a weapon of the enemy.

Watercraft Modernization Program

The Army Watercraft Modernization Plan is focused on improving the Army's ability to transfer materiel from ocean-going vessels to the shore, primarily by means of logistics-over-the-shore (LOTS) operations. A viable LOTS program provides the Army with a flexible and guaranteed sustainment capability. This capability has worldwide implications but is particularly critical in Southwest Asia where, exclusive of Saudi Arabia, the majority of ports are unimproved, inadequate, and shallow. Additionally, LOTS ensures continuity of logistics support when fixed, improved ports have been rendered ineffective due to war damage -- a potential during Operation Desert Storm.

Army watercraft also augment intratheater air and land modes of transportation through the use of coastal waterways. Such support has been provided during Operation Desert Storm since the arrival of the pre-positioned ships and the self-deployed logistics support vessels. Army watercraft also have been in use extensively in Panama, Hawaii, and the Azores for many years.

The Army currently has more than 490 items of watercraft equipment in 13 Active and Reserve Component units. Beginning in the mid-1980s, the Army initiated a comprehensive effort to modernize and upgrade our watercraft fleet. Such systems are essential for the versatile and deployable Army of the future. Major procurement highlights include:

- Logistics Support Vessel (LSV). The LSV is an ocean-going vessel, about 273 feet in length, with a crew of 29 soldiers. With a 2,000-short-ton cargo capacity, the LSV can transport 15 M1A1 tanks or 27 M2 Bradleys. In December 1990, the Army fielded the last of five of these vessels. Two LSVs are currently supporting Operation Desert Storm.

- Landing Craft, Utility (LCU), 2000 Design Series. The 2000 series LCU is designed to transport personnel, equipment, and wheeled and tracked vehicles in both coastal waters and in LOTS operations. Fully self-deployable to overseas areas, this LCU has a crew of 12 soldiers and can transport 372 short tons of equipment. The Army is procuring 35 of these vessels; 12 have been fielded to date. Four LCUs currently are supporting Operation Desert Storm.

- Causeway Systems. Causeways are versatile platforms that can be used in a variety of ways to assist in cargo discharge operations. The Army has fielded three floating causeway systems and has funded eight additional powered causeway systems and an elevated causeway.

- Lighter, Amphibian, Heavy Lift (LAMP-H). A proposed acquisition item, the LAMP-H will correct major limitations in the Army's amphibian capability. Current amphibians are 30 years old, technically obsolete, difficult to deploy, and even more difficult to support logistically. LAMP-H design specifications envision an ability to transport a 100-short-ton payload at 10 knots in moderate sea conditions and negotiate a 5-foot-high plunging surf. The Army plans to procure 14 of these amphibians, with initial fielding targeted for FY96.

Light Forces Modernization Plan (LFMP)

The LFMP is designed to cut across all other modernization plans to extract those portions of the plans applicable to light infantry. The intent of the plan is to improve the lethality and survivability of our light fighters. A two-phased plan, LFMP-Phase I (FY90 to FY97) already has assessed and modified the design and some material for light, airborne, and air assault divisions. LFMP-Phase II will analyze these issues in light of requirements for FY98 to FY06.

Soldier Support Modernization Plan (SMP)

The purpose of the SMP is to make the soldier more lethal, survivable, effective, and sustainable by means of a systematic, integrated plan that addresses long-term requirements, priorities, and funding. The plan addresses those items of equipment that are worn, carried, or consumed by the soldier in the field. The present plan addresses the dismounted combat soldier. Vehicle crewmen (air and ground) and other soldiers, along with capabilities required to support the soldier, such as field services and health services, will be addressed later. As a result of the soldier modernization effort, centralized fielding and funding of soldier equipment has become a reality. Centralization ensures that high-priority, first-to-fight units receive modernized equipment in a timely and efficient manner. The plan is scheduled be completed in FY91.

Additionally, the Army is implementing the congressionally mandated Soldier Enhancement Program by intensifying efforts to identify, quickly develop, and procure more lethal infantry weapons and improved soldier items. Twenty-eight tasks in the areas of small arms and munitions, combat clothing and individual equipment, communications and navigation aids, and food and shelters are in progress at four Army Research and Development Centers. Emphasis is on nondevelopmental items rather than lengthy development efforts. Examples of work in progress are optics for light weapons, advanced rifle grenade munitions, mine neutralization devices, lighter-weight helmets, penlights, and electronic compasses.

Soldier Oriented Research and Development in Personnel and Training (SORD-PT)

SORD-PT will continue to produce effective manpower, personnel, and training products for the Army. Its aim is to conduct effective research in these areas to maximize Army resources in support of the national military strategy. The Army's unprecedented success in recruiting, training, and assigning soldiers of the highest quality is a direct result of SORD-PT. SORD-PT leads to utility and lethality improvements in equipment from research and development with human factors engineering. SORD-PT training research support to home stations and the Combat Training Centers contributes to the high state of readiness achieved by Army forces. Reshaping the Army will be the major driving force of the decade, and "people issues" will be at the forefront of the process. The Army's ability to conduct realistic, cost-effective training through simulations while remaining at a high state of readiness is a major mission area of SORD-PT.

SORD-PT will provide the enduring assets of quality, capable military and civilian personnel to meet the demands of the future Army.

Manpower and Personnel Integration (MANPRINT) Program

The MANPRINT program's emphasis on the human aspects associated with system development has resulted in an increased warfighting capability for the Army. Integration of the areas of manpower, personnel, training, system safety, health hazard, and human factors engineering in the materiel acquisition process enables the Army to provide the soldier with equipment that can perform well, whether in the streets of Panama City or the deserts of Saudi Arabia.

For example, within the Forward Area Air Defense System, the application of MANPRINT markedly influenced the development of the Avenger and the Line of Sight-Forward Heavy (LOS-FH) systems. A 10.2 percent increase in the performance capability of the Avenger was accomplished by identifying human error design fixes before procuring the system. Without MANPRINT, obtaining the same results from the uncorrected system would have resulted in additional hardware and manpower costs of approximately $60 million. Also, MANPRINT analysis on the LOS-FH produced a reduction in soldier workload that will increase the soldier's proficiency with the system.

MANPRINT's role in the enhancement of overall system performance will continue to grow as the availability of resources decreases. Positive innovations resulting from MANPRINT implementation will ensure that the Army's modernization efforts are as effective as possible for the soldiers of today and tomorrow.

Information Mission Area (IMA) Modernization Plan

The current plan describes modernization efforts that implement five major themes for the 1990s. First, the Army must capitalize on an open-systems environment as a means to increase future competition, maximize interoperability, improve sharing of resources, and enable modular replacement of equipment. Second, we must eliminate redundant and unique systems and replace them with the DOD Corporate Information Management System and Army standard systems. Third, we need to reduce the fixed cost of operations by implementing DOD and Army management initiatives to consolidate and streamline IMA resources. Fourth, we must provide IMA support to ongoing modernization efforts consistent with congressional intent and management efficiency. Fifth, the IMA Modernization Plan must position the Army to globally implement national policy decisions by maintaining critical systems with state-of-the-art technologies that facilitate the Army's capability to move, fight, and communicate.

Sustaining base information systems support headquarters and installations in the day-to-day management functions used to raise, organize, train, equip, deploy, and sustain the Army. The IMA Modernization Plan covers all sustaining base organizations involved in the IMA disciplines -- automation, communications, printing and publications, visual information, and records management. The IMA Modernization Plan highlights information systems interoperability requirements necessary to support the Army's modernization efforts. The plan provides a blueprint of key modernization programs needed for the Army to respond to new technology and changing requirements and to gain efficiencies.

A major thrust of the IMA Modernization Plan is toward improving the Army's "go to war" capability through architectural features that reduce training requirements and enhance user productivity. The cornerstone programs in this plan include the Sustaining Base Information Services and the Installation Support Module. The former will address the requirement for an Army-wide, common-user processing system to support sustaining base application software. The latter will furnish installation and major command commanders with standard applications to perform day-to-day administrative functions. In early FY91, the Modernization Plan was expanded to include the Strategic Military Satellite Communications Program and to coordinate that effort with the C2 Mod Plan.

Close Air Support (CAS)

The Army's AirLand Battle doctrine and the evolving AirLand Battle-Future concept continue to call for the integration of responsive day and night close air support of ground forces. Fixed-wing attack assets possess intertheater deployability, intratheater versatility (allowing for rapid concentration of firepower), and lethality. Several key Joint Staff studies, mandated by Congress and sponsored by Office of the Secretary of Defense, have reviewed and validated the fixed-wing CAS requirement. These independent close support studies confirmed the need to maintain all complementary components that can provide fire support in proximity to ground maneuver forces: artillery, attack helicopters, and fixed-wing attack aircraft. Air Force analysis has evaluated numerous alternative candidate systems, including the A-7, A-10, F-16, AV-8B (U.S. Marine Corps - Harrier) and F/A-18 (Navy) aircraft. The results, from a variety of regional scenarios and threat levels (high to low), supported the A-16 multirole (F-16 Block 30 upgrade) aircraft as the most suitable and cost-effective aircraft. The A-16 incorporates all critical capabilities that a fixed-wing CAS aircraft must have to support ground forces effectively with close-in fires. Additionally, some A-10 aircraft will be upgraded and retained in the force to perform the CAS mission. These aircraft, synchronized in their employment with Army artillery and attack helicopters, are capable of providing our forces devastating fire support in day, night, and adverse weather conditions.

Reserve Components Modernization

Army modernization plans encompass the Total Army. Nowhere is this more clearly seen than in the strides that have been made in the last decade in improving RC equipment readiness. Following the completion of Operation Desert Storm, as the Army proceeds with the build-down to a smaller, capable force, RC modernization will continue apace.

Major USAR Initiatives

USAR light equipment maintenance companies have had readiness problems associated with excessive, redundant, and obsolete equipment requirements. An Army review of the company structure resulted in the development of a streamlined and modernized organization with a cost savings of $45 million in equipment needs, plus an annual reduction in calibration costs. This conversion, scheduled for FY91, will take place to save resources, improve readiness, reduce storage requirements, and increase unit mobility.

The Army approved the testing of an E Company (Attack Helicopter) concept in July 1990. This is a major USAR force structure initiative designed to enhance the warfighting capability of AH-64 attack helicopter battalions. Company E is a unit with a manning structure similar to other AH-64 companies. It has an augmentation package of staff members and sustainment personnel, but no equipment. The company will be collocated with an AC battalion and train on that battalion's equipment. In wartime, its augmentation package joins the battalion headquarters and the aviation unit maintenance company while its crew members fight as a fourth attack company, thereby enhancing continuous operations.

The USAR contains over 70 percent of the Army's medical support, and a significant number of USAR medical units are providing support to Operation Desert Storm. Fielding of minimum essential equipment for training (MEET) sets of DEPMEDS equipment to USAR medical hospital units is continuing to allow these units to maintain their proficiency in wartime skills. By the end of FY93, there will be 63 MEET sets provided to the USAR.

Training of RC personnel in units that have received DEPMEDS equipment is being accomplished at Regional Training Sites-Medical. The five RTS-Meds programmed for the USAR are scheduled to be operational by FY93.

The USAR's two utility landing craft companies are being modernized to increase their mission capabilities. The 481st Transportation Company (Heavy Boat) is converting from LCU 1400s to LCU 2000s. The new boat will increase the unit's hauling capability from 150 short tons to 350 short tons. The 824th Transportation Company (Heavy Boat) will increase its capability from 150 short tons to 184 short tons.

The MI Abrams tank was distributed to the 100th Training Division during FY90. Additional equipment assets were identified for the 100th Training Division as a result of force reductions at Fort Knox, Kentucky. MI tank distribution will be accelerated to the USAR, with initial combat units receiving tanks in FY92 instead of FY93.

The Small Unit Support Vehicle (SUSV), a tracked arctic support vehicle, was procured with both Procurement, Army, and Dedicated Procurement Program funds. In early FY91, 65 of these vehicles will be delivered to New Brighton, Minnesota. The remaining 193 vehicles will be pre-positioned at Fort Richardson, Alaska, during FY91. An initiative is ongoing to secure funds necessary to procure SUSVs for the 187th Infantry Brigade to support its cold weather mission.

The Army National Guard will continue to receive state-of-the-art equipment under the Army's Modernization Plans.

The USAR will receive additional, accelerated distribution of a myriad of more modern equipment due to the reshaping of the force. Some of these additional assets include High Mobility Multipurpose Wheeled Vehicles (HMMWV) (including approximately 350 ambulances), Heavy Expanded Mobility Tactical Trucks (HEMTT), 5-ton trucks, M88 Recovery Vehicles, Ground/Vehicle Laser Locator Designators, and M198 Howitzers.

Major ARNG Initiatives

The Army National Guard continues to modernize and convert units to the Army of Excellence organizational design. Significant unit activations for FY92 include a Hawk air defense artillery battalion in South Carolina and a new transportation terminal service company in Louisiana. The activation of a Multiple Launch Rocket System battalion in Oklahoma and Texas will give the ARNG its second battalion equipped with this modern weapon system. Other activations include a Mobile Army Surgical Hospital in Washington and a signal company and a petroleum battalion headquarters, both in Tennessee.

Equipment availability and proper distribution in an environment of force reductions, Operation Desert Storm requirements, and constrained budgets are of extreme importance to ARNG efforts to maintain high equipment-on-hand readiness. Use of the Equipment Readiness Analysis program, developed by the ARNG, is continuing to account for significant EOH readiness increases and decreases in excess equipment in the ARNG. Since 1985, the first year of use, the EOH readiness of ARNG units has risen steadily. At the same time, $306 million worth of excess equipment has been redistributed or turned in. During Operation Desert Storm, the ARNG, through the Equipment Readiness Analysis program, was able to redistribute equipment to ensure activated units were deployed with a full complement of equipment.

The ARNG is continuing with a program to upgrade the ARNG's remaining 3,500 gasoline powered 2 1/2- and 5-ton trucks. The trucks are being repowered with multifuel engines, which will ease maintenance and support requirements for these vehicles. The Tactical Wheeled Vehicle Modernization Program is proceeding on schedule in the ARNG. Through this program, older vehicles, such as jeeps and 5/4-ton trucks, are being replaced with new light tactical wheeled vehicles.

The Army Aviation Modernization Plan will upgrade or replace aging ARNG aircraft, such as the CH-54 and the UH-1M. The plan calls for 12 ARNG AH-64 (Apache) advanced attack helicopter battalions and conversion of 6 heavy lift and 4 other units to the upgraded CH-47D (Chinook). Four Apache battalions have already been fielded, with three in training for fielding in FY91/92. The remaining five will be fielded by FY95.

Reserve Components participation in Operations Just Cause and Desert Storm has demonstrated that timely readiness and mobilization information are essential for the Army's ability to respond to a national emergency.

The Reserve Component Automation System (RCAS) will be a state-of-the-art automated information system that will improve unit administration, mobilization planning, and mobilization execution for the ARNG and the USAR. These functions will be performed at over 9,800 units at more that 4,700 locations in CONUS and overseas. The RCAS will link all Army RC units, mobilization stations, and Major Commands.

The RCAS program is now in the design phase of acquisition. Two companies have been selected to participate in a competitive demonstration to be conducted in the spring of 1991. One company will be selected as the RCAS prime contractor in October, 1991. Fielding of RCAS critical elements will begin in 192 and continue through 1994. The following two years will see fielding of functions and equipment to complete unit automation.

Dedicated Procurement Program (DPP)

The DPP is a congressionally directed action to assist RC units in reaching established readiness goals. Equipment procured through DPP is expected to be delivered to the ARNG during the 3-year life of the funds. For the first time since its inception, DPP was included in the FY91 DOD budget submission.

Since 1981, the Army National Guard Bureau has committed over $1.6 billion dollars under the DPP toward improving EOH readiness of the ARNG. The effects of these procurements are very evident in the ARNG equipment-on-hand readiness levels, which are higher than ever.

Funds for FY90 were committed toward procurement of tactical radios, HEMTTs, truck tractors, Small Unit Support Vehicles, electric shops, command post carriers, Fire Support Team Vehicles (FISTV), C-23 aircraft, and other items crucial to improving readiness. Projected ARNG buys for the decade include medium tactical vehicles, heavy tactical vehicles, SINCGARS radios, Multiple Launch Rocket Systems, and miscellaneous items that further the ARNG's ability to accomplish assigned missions.

During the period from FY81 to FY90, the USAR has purchased over 38,000 pieces of equipment valued at more than $1.05 billion. Significant improvements in unit capabilities have resulted from continued modernization of the USAR truck fleet as well as from improvements in fielding engineer and other general support equipment. During FY90, USAR units received 595 5-ton trucks, 274 semitrailers, 649 VRC 12-series radios, 500 night vision devices, 22 Improved TOW Vehicles, and 785 various pieces of other support equipment. Some of these items were deployed with their units in support of current operations in Saudi Arabia.

The Army Role in the Strategic Defense Initiative (SDI)

Today, with more than 33 years of experience in ballistic missile defense (BMD) research and development, the Army is making significant contributions to the SDI effort. These contributions have occurred in technological advances involving sensors; interceptors; battle management and command, control, and communications; and laser and neutral particle beam development.

The Airborne Surveillance Testbed, the world's most sophisticated long-wave infrared sensor, housed in a modified Boeing 767, flew nine successful star and satellite tracking missions in the United States and successfully conducted its first mission against target vehicles at the U.S. Army Kwajalein Atoll. This sensor testbed validates the functional performance of advanced long-wave infrared sensor technology.

The Ground-Based Surveillance and Tracking System (GSTS) and Ground-Based Radar (GBR) are both sensor systems designed to help with tracking and discrimination of reentry vehicles. The Department of Defense has approved moving GSTS and GBR into the demonstration and validation phase of development. GSTS successfully completed significant technology demonstrations that served as the basis for completing sensor preliminary design review.

In January 1990, the High Endoatmospheric Defense Interceptor Kinetic Integrated Technology Experiment (HEDI KITE-1) flew a highly successful test flight. HEDI KITE-1 was designed to test state-of-the art BMD technologies capable of providing the last layer of defense that will use kinetic energy to intercept ballistic missiles. Additionally, in January 1991, the Exoatmospheric Reentry Vehicle Interceptor Subsystem (ERIS) successfully intercepted an intercontinental ballistic missile warhead in the presence of decoys. Two more advanced ERIS test flights are scheduled in 1991.

The Army's Lightweight Exoatmospheric Projectile, a technology effort that has proved beneficial in developing ground- and space-based interceptors, has been successful in propulsion and guidance tests and will be ready for an intercept test flight in 1991.

The Free Electron Laser (FEL) is a directed-energy project being designed to test high-energy laser applications for the BMD mission. The FEL project successfully integrated and operated a subscale free electron laser system in March 1990. The project has been redirected by the Strategic Defense Initiative Organization to support a space-based technology effort. Recent space-based relay mirror experiments have been extremely successful.

The Neutral Particle Beam (NPB) is a directed-energy program designed as both a space-based weapon and a discriminator to identify real targets among decoys and penetration aids. This program defined the NPB weapon and discriminator concepts and initiated the fabrication of the Continuous Wave Deuterium Demonstrator and Ground Test Accelerator. It will culminate in the newly awarded Neutral Particle Beam Space Experiment.

In battle management and command, control, and communications, work continues to test an experimental system, improve its survivability, and conduct experiments on how well the complete SDI architecture will function under numerous types of engagements. The Army has become a leader in this software development.

The technology derived from the Army's work in SDI continues to benefit the Army in other areas. For example, the Army Tactical Surveillance Satellite concept is based on emerging SDI technologies.

Other SDI technology-related spin-offs are the militarized computer module (MCM), the tactical inertial measurement unit (IMU), and the Distributed Computing Design System (DCDS). The shoebox-size, portable MCM can provide the power of six VAX 11/780 computers to field commanders, while the IMU fiber-optic gyro can be applied to any mobile platform, such as tanks, jeeps, or helicopters, requiring an internally referenced position and navigation system. It will allow commanders or soldiers to know their exact location anytime, day or night. In another breakthrough, the Army and the Air Force are using DCDS as a cost-saving software design tool. Finally, advancements in composite materials from our interceptor and sensor technology programs have been demonstrated this year on a commercial rocket and in the development of orthotic leg braces and improved cardiac pacemaker electrodes.

These SDI technology efforts continue to support the needs of the Army, the Nation, and our allies in developing a system that will hedge against the threat of ballistic missile attack, while assuring that new technology developments also are included in other national security and quality of life programs.

Theater Missile Defense (TMD)

According to recent estimates, 20 nations will have ballistic missile capabilities with conventional, biological, or chemical warheads by the year 2000. Regional conflicts will increase greatly the potential for use of such weapons in the future, as is evident from Operation Desert Storm. Despite the Patriot's great success, it is critical that we continue to pursue a defensive solution for our forward-deployed and contingency forces against short-range ballistic missiles.

The Patriot air defense system has been extremely successful during Operation Desert Storm.

As a result of the 1983 presidential guidance to expand research for a defense against ballistic missiles of all ranges, the Army's Strategic Defense Command (USASDC) has been exploring advanced technologies and architectures that can be used for theater missile defense.

USASDC is conducting extensive research into systems capable of providing active defense against the theater missile threat. Extended-Range Intercept Technology will demonstrate a hit-to-kill capability with a prototype missile and launch control system. In a cooperative program with the government of Israel, the Arrow experiment will continue to demonstrate improvements in anti-tactical missile technology by downsizing and extending the performance of the current Arrow test vehicle during an anticipated 4-year follow-on contract. The Theater High Altitude Area Defense Program currently is defining system concepts by using Strategic Defense Initiative technologies to solve TMD problems.

The TMD experiments program is testing and evaluating U.S. and allied ground systems and subsystems to identify available technologies that may contribute to TMD. The advanced contingency theater sensor program will define a suite of sensors required for contingency theater applications.

Finally, the Extended Air Defense Test Bed (EADTB) will provide for simulation and support analyses of TMD issues from locations in the United States and Europe. Currently, the EADTB initial capability is being used by a number of U.S. and allied organizations.

The Army's Role in Space

Space has become an integral component of Army efforts to contend with the widely disparate, unforeseen conflicts that may arise in the future. Consequently, we continue to work to provide space systems support to tactical commanders in the areas of position location and navigation; worldwide communications; satellite weather and terrain coverage; and surveillance and target acquisition.

CINC, U.S. Space Command, has responsibility for space support to the warfighting CINCs. The U.S. Army Space Command (ARSPACE), as a component command, provides operational forces for the ground portion of designated space systems. ARSPACE also provides space systems support to operational forces, as in Operation Desert Storm, where ARSPACE provides Global Positioning System navigation, weather, and map and terrain support.

The U.S. Army, a pioneer in the exploration of space, continues to pursue space systems essential for the defense of the Nation. In July 1990, the Army Space Council approved initiation of research and development for two tactical satellite (TACSAT) programs that will provide significant space capabilities to the tactical commander. The first of these programs involves the demonstration of a TACSAT that is intended to be launched on demand and will provide an all-weather, day and night intelligence capability. The satellite will be designed to provide processed information directly to the tactical commander, and its packaging will be tailored to the commander's intelligence requirements. The satellites can be launched into any orbit necessary to provide support anywhere in the world Army forces might be deployed. This program uses several SDI technologies and advanced Army laboratory experiments. The USASDC will manage this effort through the demonstration phase, which is expected to last approximately 4 years.

Another demonstration program that will use TACSAT advanced technology will provide the Army with an all-weather, day and night, antijam communications capability. This system will have an extended range (1,000 miles) and lightweight ground terminals and will provide enhanced long-range antijam connectivity to the Army's Mobile Subscriber Equipment communications system. This will be the Army's first attempt to provide our commanders with Army-owned and -operated space systems since the early 1960s.

Testing, Evaluation, and Instrumentation

The Army must apply resources for new equipment acquisition and modernization alternatives more effectively than in the past. Vigorous and realistic test and evaluation will play an increasingly important and central role in this environment, particularly in view of the application of a Total Quality Management (TQM) approach (see Chapter IX) to materiel acquisition. Under TQM, acquisition managers must establish objective and measurable criteria for evaluating a system at each milestone where decisions are made concerning whether or not development of the system will continue. Performance verification requirements and suitability measures associated with these criteria will rest with the test and evaluation community and cast it at center stage as the principal insurer of the Army's investment dollars.

To meet this challenge, the Army's test infrastructure, particularly the instrumentation base, must remain up-to-date and robust. Last year, $100 million was added to instrumentation base accounts over the 5-year program to replace aging assets and procure new capabilities necessary to test technologies currently under development. This year, those funds remain intact and continue to be dedicated for that purpose -- acquiring the most urgently needed instrumentation, threat simulators, and targets for accomplishing required testing at lower cost.

After a year-long trial under a provisional charter, the Army's Test and Evaluation Management Agency (TEMA) officially became a permanent addition to the Army staff last year. TEMA will implement its broad and multifaceted charter to ensure that test and evaluation requirements, resources, and schedules are fully integrated and responsive to Army materiel fielding plans.

Finally, the Army's test and evaluation community is seeking to enhance its support of the Army's acquisition programs. Elements of both the operational and the technical test communities are being combined to achieve management efficiencies and manpower savings, and the Army test and evaluation community is reviewing the feasibility of further consolidation with the other services. Further, application of the principles of TQM and modernization of test instrumentation devices and procedures will move the community closer to its goal of providing the soldier the best possible equipment.

VIII. Leaders

The Army is developing competent, confident leaders.

Leader Development

In the Army, leadership responsibilities vary from leading a squad of infantry soldiers to dealing with civilian industry in the acquisition of high-dollar modernization programs. Proficient and professional leaders -- civilian and military -- are key ingredients of the Army's success, both in our peacetime activities as well as in combat. The Army has made a total commitment to develop leaders by providing the skills, knowledge, and attitudes necessary for them to exhibit the leadership characteristics and traits required to lead. The objective of developing leaders -- officers, NCOs, warrant officers, and civilians -- regardless of the wide range of responsibilities within the Army, is accomplished through a dynamic leader development system consisting of three equally important pillars:

- Schools. The Army's school system provides the formal education and training that all personnel require to develop specific job-related skills as well as basic leadership skills. This training is conducted on a progressive and sequential basis to prepare the individual for ever-increasing positions of responsibility. Assessment programs within the schools provide feedback and guidance to students to assist in their development;

- Experience. Operational experience through duty assignments requires leaders to use and build upon what was learned through the process of formal education. It is the successful application of the knowledge and skills acquired from institutional education and training that builds the necessary confidence required in a leader. Accomplishing the complex missions performed by today's Army requires confident, competent leaders; and

- Self-development. Individual initiative and self-improvement are keys to training and developing every leader. The formal education system has limits to what it can accomplish; the leader can and must continue to expand that knowledge base, using Army correspondence courses, civilian education, reading programs, or numerous self-study programs.

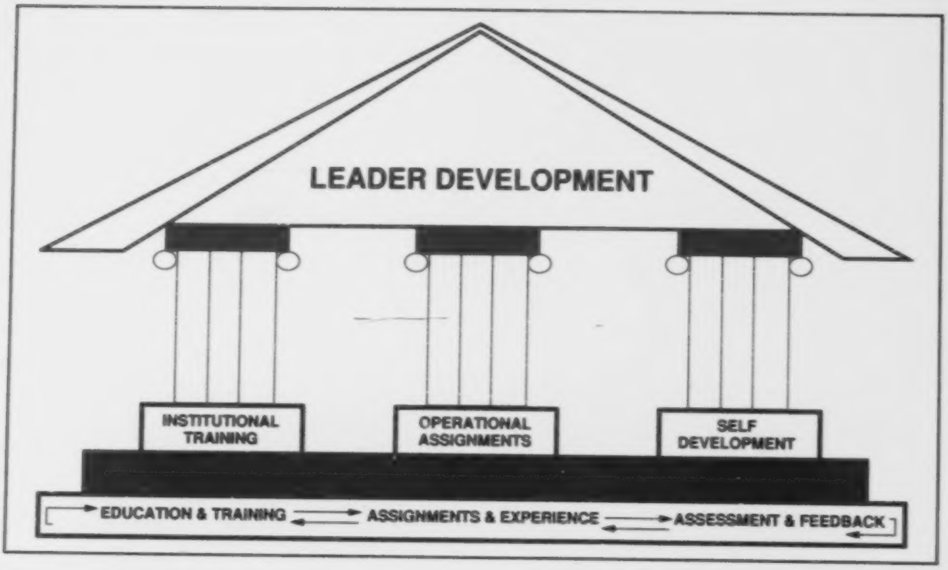
Officer Leader Development

As force reductions occur, the vital mission of developing quality officers assumes an even greater role in ensuring the Army's future success. The Military Qualification Standards (MQS) Program establishes standards for implementing leader development in the Army officer corps. MQS I is the common core for precommissioning training regardless of commissioning source -- U.S. Military Academy, Reserve Officer Training Corps, or Officer Candidate School. MQS II addresses development for company grade officers from commissioning until promotion to major. MQS III is the leader development guide for majors and lieutenant colonels. The MQS program links the three elements of leader development, ensuring that the efforts of school commandants, unit commanders, and individual officers are complementary. The goal of MQS is to produce officers well versed in warfighting tasks and prepared for service in positions of greater responsibility.

The Officer Education System provides a path of progressive and sequential training that culminates in the development of professional leaders who understand and are able to exploit the full potential of present and future Army doctrine, equipment, and force structure.

The officer basic course prepares newly commissioned officers for their first duty assignments at the section or platoon level. The focus of instruction includes an emphasis on training and employing individuals, teams, squads, crews, and their authorized equipment. The course also includes sufficient instruction at the company level to provide officers with a basic understanding of the environment of the company, including its tactics, organization, equipment, and administration.

The Officer Advanced Course shifts the focus of leader development training from the platoon level to the company, team, battery or troop. It helps prepare captains to lead, train, maintain, and fight units of greater size,



scope, and responsibility. The 20-week course includes common and branch-specific instruction as well as specialty training modules to further enhance particular skills.

The Combined Arms and Services Staff School (CAS3) is a two-phased training experience that trains captains to perform in staff positions. Phase I is an intensive correspondence course that lays the groundwork for instruction provided in the phase II resident course. CAS3 instruction emphasizes problem analysis, solution development, and staff coordination in a concentrated, fast-paced course of study. Attendance occurs between an officer's sixth and ninth year of service.

The Command and General Staff Officer Course provides field grade officers with the skills and knowledge required to serve as general staff officers and field grade commanders. As the Army's senior tactical school, it focuses its training on the operational art of war and combined and joint operations. While in-resident instruction is limited to 1,280 students, over 17,000 additional officers annually participate in a very demanding correspondence course.

The Advanced Military Studies Program provides selected staff college graduates who display operational acumen with an intensified course analysis of the tactical and operational art of war. Following graduation from the program, students serve a mandatory 12- to 18-month internship with a division or corps staff where their skills and expertise can be best used in managing critical warfighting training.

The Army War College is the Army's capstone educational institution. Here senior officers are trained for high-level positions in the Army, DOD, and other related agencies concerned with national security. The training focuses on the study of national security affairs, with emphasis on the development and employment of ground forces. Course content includes analysis and development of national security policy and the formulation of national and theater military strategy. Other studies include the formulation and execution of combined and joint campaign plans, mobilization, force development, and the operational projection and employment of military forces.

The Joint Professional Military Education (JPME) program began in June 1990. This represented a major step by the Army to develop a nucleus of officers fully trained and skilled in the requirements of joint operations -- a requisite for success on a modern battlefield. JPME is a two-phased course of joint instruction that builds on the joint training received in the Command and General Staff Officer Course and the Army War College. Phase I requires the completion of training at an intermediate or senior level school, such as the Staff or War College. Phase II includes instruction at the revised Armed Forces Staff College at Norfolk, Virginia. Students attend one of two different courses, either intermediate level (9 weeks) or senior level (5 weeks). Major areas of study include analysis of the national military capability and command structure, joint doctrine, joint planning, joint and combined operations, and campaign planning. In August

The Army develops leaders through progressive and sequential operational assignments.

1991, the course length for both courses in Phase II will be extended to 12 weeks. In FY91, 350 Army officers are scheduled to take part in the JPME program.

Warrant Officer Leader Development

The Warrant Officer Training System provides a three-level progressive and sequential certification for warrant officers. Training and certification occur at entry, senior, and master warrant officer levels.

At the entry level, the system is composed of a "triple check" pre-appointment process. This process requires the successful completion of the following checks: selection of warrant officer candidates by a centralized board; successful completion of the Warrant Officer Candidate School; and successful completion of the Technical and Tactical Certification Course.

The Warrant Officer Candidate School is a standardized training course that all warrant officer candidates must attend. The course content is composed of instruction in leadership, professional ethics, land navigation, AirLand Battle doctrine, communicative skills, training management, drill and ceremonies, and other common critical skills required of all warrant officers.

Technical and tactical certification concentrates on those skills and tasks in which the candidate must be proficient to perform successfully at the warrant officer level.

Senior warrant officer training is designed to refresh and enhance common skills, update technical knowledge, and train senior warrant officers to perform successfully in senior-level positions.

Master warrant officer training is the capstone level of training. It is designed to develop selected senior warrant officers as systems integrators, managers, and trainers in a senior leadership role at various Army organizational levels. To attend this level of training, senior warrant officers must be selected for designation as a Master Warrant Officer by an Army selection board.

Noncommissioned Officer Leader Development

The Army's NCO education system follows the Army's program for training our leaders. Consisting of the Primary Leadership Development Course (PLDC), the Basic Noncommissioned Officer Course (BNCOC), the Advance Noncommissioned Officers Course (ANCOC), the Sergeants Major Course, and various functional courses, it provides successive levels of education as well as special training for specific duties. The system ensures that NCOs are trained to uniformly high standards so that they are fully qualified to train and lead soldiers.

The Primary Leadership Development Course is a four-week, non-MOS-specific, field-oriented leadership course built around basic soldier skills. PLDC is taught at NCO academies throughout the Army and is designed to prepare soldiers for leadership responsibilities at the grade of sergeant.

The Basic Noncommissioned Officer Course prepares NCOs for duties as staff sergeants. BNCOC for combat arms NCOs emphasizes leader training and combat-critical tasks related to each respective MOS. The courses stress performance-oriented training techniques and are also conducted at NCO academies. BNCOC for combat support and combat service support NCOs emphasizes MOS-related and common core tasks that enhance prior training received at PLDC. It is conducted at resident service schools.

The Advanced Noncommissioned Officer Course prepares staff sergeants and sergeants first class for duties in platoon sergeant and equivalent positions. ANCOC has a common leadership core and stresses MOS-related tasks, emphasizing leadership skills and knowledge of the subjects required for training and leading soldiers at the platoon and comparable level. ANCOC is conducted at resident service schools.

The Sergeants Major Course is the capstone of enlisted training. It prepares selected soldiers for Sergeant Major and Command Sergeant Major duties. Master Sergeants and Sergeants Major are prepared for both troop and staff assignments. The Sergeants Major Academy is a prerequisite for appointment to the duty position of Command Sergeant Major. The senior-level training is obtained through a six-month resident course taught at Fort Bliss, Texas, or through the two-year Corresponding Studies Program. In either case, soldiers must be selected by an Army selection board.

NCOs are trained to uniformly high standards through the Army's leader development program.

To ensure requisite proficiency levels were being retained among soldiers and NCO's, the Army conducted Skill Qualification Tests as an integral part of the individual training and evaluation program. Today, this test is being phased out and the Self-Development Test is replacing it. The Self-Development Test will serve as the vehicle for NCOs to measure and guide their growth in professional competence in leading soldiers. It will be a formally administered written test of MOS skills, training, and leadership knowledge, with the soldier's manual as the primary source of questions. Preparation for the test will be a personal responsibility. After full implementation, the Self-Development Test will be one of the key factors in determining NCO promotions, assignments, school selection, and retention.

Reserve Components (RC) Leader Development

RC leader training is based on the same three pillars of leader development as for the AC; however, the training is modified somewhat as a result of the unique circumstances facing RC leaders. For RC leaders, institutional training includes resident and exportable professional development and functional courses. Self-development has always been a hallmark of RC leaders.

A leader development action plan is currently being developed for the RC. It will complement current plans now available to AC and civilian leaders and is projected to be implemented by the end of FY91.

RC officer education is progressive and sequential and built around the same MQS structure as the AC program. Regardless of their source of commission, all new officers receive the same basic military and leadership instruction based on the MQS I (precommissioning) model. Branch tactical and technical competency is developed in the officer basic course, which is the same resident course for both RC and AC officers. The RC Officer Education System includes exportable or abbreviated resident instruction in a branch officer advanced course, which focuses on company-level operations, and in the Command and General Staff Officer Course, which focuses on higher level leadership and tactical instruction. The basic course and the advanced course are part of MQS II which includes self-development as an integral part of an officer's development. The Army has revised the RC Officer Education System to better suit the needs of our RC officers. It will feature a shortened RC advanced course, the addition of an exportable Combined Arms and Services Staff School Course focusing on teaching officers required staff skills, and a realigned Command and General Staff Officer Course that teaches tactics and the operational level of war.

The Warrant Officer Entry Course is the only exportable course in the RC Warrant Officer Training System. It is a 4-week course conducted at Fort McCoy, Wisconsin. Technical and tactical certification courses must be taken in residence at active Army schools, though many of these courses are shortened for the RC and involve self-development phases for home study in addition to attending a branch school.

The RC Noncommissioned Officer Education System (RC-NCOES) has matured into a comprehensive professional development program. It provides common leader training and MOS-specific training during PLDC, BNCOC, and ANCOC. Effective in October 1991, the appropriate RC-NCOES courses will be prerequisites for promotion. These are all exportable and are taught by RC training institutions. For those selected, the First Sergeants, Sergeants Major, and Command Sergeants Major Courses are available through the Sergeants Major Academy. In addition, the First Sergeants Course and the Senior Sergeants Battle Staff Course are exportable and taught by RC training institutions. Self-development is an integral part of the NCO's career, through the Skill Qualification Test (soon to be replaced by the Self-Development Test) and preparation for RC-NCOES courses. Self-development is furthered by acquiring additional military skills, attending functional courses, and continuing personal professional development.

Civilian Leader Development

The Army's Civilian Training, Education, and Development System (ACTEDS), provides for the systematic development of civilian leaders by blending progressive and sequential work assignments with formal training. The Army's Civilian Leader Development Action Plan, approved in April 1990, established a civilian leader development program modeled after the officer and NCO education systems. The plan includes steps to integrate the efforts of Army civilian and military members into a total corporate culture. It calls for adopting private sector management techniques, leader development models, and establishes leadership training for all levels. The need for top-quality civilian leaders will be reinforced as we reshape Army forces for the future, moving civilians into leadership positions formerly held by military officers, in fields such as installation management and acquisition management.

The continued funding in FY92/93 of the intern program is the key to the success of ACTEDS. During FY90/91, ACTEDS plans were implemented in 24 career programs covering some 99,500 employees. Plans for this forthcoming period will include the expansion of ACTEDS for the remainder of the work force. This program provides the personnel for meeting long-range staffing needs in such occupational areas as safety, logistics, ammunition management, contracting and acquisition, resource management, and information management. The intern program provides the opportunity to recruit quality college graduates at the entry level in professional and technical occupations and give them the training and development they need to become effective employees and future Army leaders. Another ACTEDS element for which funding is vital is the civilian leader development program, designed and taught by the Center for Army Leadership, Fort Leavenworth, Kansas. Core courses include leadership training for individuals at three critical stages of their development: intern, supervisory, and managerial. The Army Management Staff College, the 14-week capstone course for civilian leaders, is equally important and is required for managers and leaders who will advance to key leadership positions. It provides essential training in strategies, doctrines, and systems relating to the Total Army with emphasis on the sustaining base. The curriculum encompasses such areas as acquisition, resource, personnel, logistics, and installation management.

The pace of technology is changing the job skills and requirements of information management professionals. Therefore, the Army will integrate several career programs into one Information Mission Area Capstone Program. This capstone career program will improve the development and retention of information mission area personnel so they can effectively and efficiently acquire, manage, operate, and maintain information systems. The program will create a qualified pool of multi-disciplined IMA personnel to fill IMA positions in the next decade. The Army Management Engineering College will begin training 900 students per year in FY91.

Computer software has become a significant factor in Army weapon systems. The Army Executives for Software is a software awareness program for Army senior leaders designed to increase management awareness of the challenges associated with the rapid growth and technology advances in weapon systems software. It promotes an understanding of the management issues surrounding the coupling of software with improved warfighting capability in an effort to maximize the efficiencies offered by emerging technologies.

Leader Personnel Management

The Army must have efficient, effective personnel management legislation in effect to maintain vital quality, to ensure a high state of readiness, and to properly care for officers, warrant officers, soldiers, and civilians.

Officer Personnel Management

The Defense Officer Personnel Management Act (DOPMA) has greatly improved the management of the officer corps and contributed significantly to building a first-rate officer corps. While Congress has granted the Army temporary management flexibility to implement congressionally mandated strength reductions in a manner that ensures continued readiness during the ongoing reductions, permanent statutory changes are required if a robust officer corps is to be maintained after the reduction transition period. Permanent changes, like those proposed in the Administration's Defense Management Improvement Act, are important to the effective manage-

Changes to DOPMA are necessary to improve the Army's ability to manage officers throughout their careers.

ment of the officer corps. Some of the proposals include authority to shift authorized end strength and reprogram funds between Active and Reserve Components; permit Service Secretaries to direct transfer of officers with less than 8 years of service to the Ready Reserve for completion of their remaining service obligation; and permit an officer who retires with less than 3 years in grade to retain his serving grade with entitlement to the retired pay for the lower grade. We support the passage of these changes. Permanent changes to DOPMA, to provide a statutory foundation for management reforms, are required if the Army is to maintain a properly aligned officer corps, exercise responsible stewardship of limited personnel resources, and maintain a readiness level essential to national security.

Warrant Officer Personnel Management

The Warrant Officer Management Act (WOMA) updates the statutes that apply to active duty warrant officers by providing professional career development and strength management similar to that provided by DOPMA. WOMA would establish the grade of Chief Warrant Officer (W5), which would be limited to 5 percent of warrant officer strength in both the Active and Reserve Components. Further, the proposed legislation establishes a single active duty list and promotion system, early promotion opportunities, selective continuation, early retirement provisions, and mandatory retirement based on years of active warrant officer service rather than active federal service. These provisions will allow the Army to maintain a technically proficient warrant officer force by retaining only the best officers while building down the warrant officer corps to projected lower end-strength levels.

Congressional approval of WOMA is essential if the Army is to achieve required warrant officer reductions without degrading readiness as the Total Force is realigned. Management flexibility is the cornerstone of WOMA. Without WOMA, the Army will be required to make involuntary separations in those skills, grades, and years of service that will impact most adversely on the long-term viability of the warrant officer corps.

Reserve Component Personnel Management

The Reserve Officer Personnel Management Act (ROPMA) provides a flexible management approach to align management of Reserve Component officers with the existing statutes governing Active Component officers. The major features of ROPMA will establish a flexible promotion system, selective continuation, selective early removal, special selection boards, and constructive service credit.

Upon enactment of this pending legislation, it will enhance RC mobilization capability facilitating Total Army readiness. The on-going mobilization of personnel in support of Operation Desert Storm is visible evidence of why the Army strongly supports the immediate passage of this legislation.

Army Acquisition Corps

The Army Acquisition Corps is designed to develop dedicated military and civilian leaders in systems development and acquisition. The program will improve and integrate processes for selection, education, training, and development of over 5,000 acquisition professionals.

Military and civilian candidates are evaluated against specific criteria for acceptance into the Corps. Candidates develop operational and technical experience prior to entry into the Corps. Officers typically enter at their eighth year of service and civilians enter at the GS/GM-13 level from acquisition-related career fields. Military members are required, and civilians will be encouraged, to pursue advanced degrees in acquisition-related fields. Only certified members of the Corps will be considered for critical acquisition positions with Program Executive Offices, Project and Product Management Offices, headquarters staffs, and selected support commands. For military members, battalion and brigade command opportunities will be replaced with program manager and program executive officer opportunities.

Army Continuing Education System

The Army Continuing Education System encompasses programs that support the self-development pillar of leader development. To assist soldiers in taking advantage of these programs, professional educational counselors work with soldiers to set unique developmental blueprints for improving job performance and for promotion and reenlistment. They focus on the academic skills, knowledge, and attitudes required to enhance soldiers' performance.

Management controls instituted over the past several years ensure that limited education dollars are used efficiently. To guarantee a level of educational consistency for soldiers in light of those limited resources, commanders in FY91 will have a minimum common core of continuing education programs that must be sustained. Every effort is being made to supplement Army money from other sources, to include local institutions, state educational funds, and such federal agencies as the Department of Veterans Affairs. Future efforts will be guided by an Army Continuing Education System Strategic Plan.

IX. Management Efficiency

The Army pursues management efficiencies to provide a trained and ready force at reduced costs

General

We have always sought to exercise effective stewardship over the resources allocated to the Army by Congress. Continuing technological advances have made possible, and declining defense resources have demanded, the innovative application of productivity enhancements and cost savings in all Army programs. Previous chapters have discussed our progress in individual program areas. This chapter will address some of the broader programs designed to improve Army management and ensure the efficient application of our resources.

Army Implementation of the Defense Management Report

The Army continues to participate actively in the implementation of the Defense Management Report (DMR). After a period of detailed planning and policy development, the Army is implementing the initial management initiatives of the DMR. The objective of these initiatives is to allow the Army to sustain and maintain a high state of readiness at the same level of support with reduced costs.

The Army implemented the recommendations of the Packard Commission and the Goldwater-Nichols Act in April 1987. The Army developed a three-tier reporting chain for acquisition program management to establish clear, abbreviated lines of authority; remove unnecessary layers; and streamline the decision process. The final step was accomplished during the Defense Management Review when the Army began to provide funding for operations and personnel directly to the Program Executive Officers (PEO) rather than through a supporting major command. This provides more direct control by the PEOs over the resources to perform their missions. The reporting system continues to evolve as we allocate resources to meet the challenges of the future.

The Army currently has 11 PEOs, who report to the Army Acquisition Executive (AAE). Since the Army's PEOs are geographically dispersed throughout the United States, a system of PEO liaison officers was established to represent the PEOs at the Department of Army level. The liaison officers are action officers who work directly for the PEO. These liaison officers are assigned to the PEO organization and are the PEO's direct interface with the Army's headquarters.

The Army has made significant progress in establishing an Army Acquisition Corps to improve the quality of the acquisition work force. We have developed procedures to select military and civilian acquisition experts who are knowledgeable and experienced, both operationally and technically. Under a centralized career management system, the members of the Acquisition Corps receive the necessary training, education, and experience to become certified acquisition managers, uniquely qualified to assume critical acquisition positions.

The Army continues to make progress in implementing other management initiatives. The focus this past year has been on improving the logistics system, reducing overhead, increasing efficiency, and reducing inventories. The Army remains committed to improving our business practices, working more efficiently, and managing our resources more effectively.

New initiatives developed during 1990 are wide-ranging and strive to continue the momentum of the DMR. Army and DOD-proposed initiatives will consolidate services, where practical, and streamline staffs to reduce costs. The initiatives cover the following areas:

- Logistics -- A number of activities will be consolidated, including commissaries and supply depots. A DOD level maintenance board will oversee the operation of maintenance depots, and the Army will emphasize a "user pay for services" philosophy;

- Information management -- Efficiencies will be realized by consolidating and streamlining services and implementing uniform automation standards and programs. Initiatives will cover telecommunications centers, visual information services, mail rooms, and the printing and publication system;

- Training and operations -- The correctional and Army documentation systems will be streamlined. The effectiveness of the management, oversight, and application of security programs will be improved. In addition, several other consolidations will take place;

- Personnel management and services -- Initiatives will reduce overhead and operate services more efficiently. The installation reenlistment and equal employment opportunity offices will each be consolidated; and

- Engineering -- Improved management and increased savings will be achieved by more efficient energy resource management. Savings also are being sought by reviewing and developing economies in the execution of base engineering functions.

The Army continues to support fully the Defense Management Report. Implementation is an ongoing process, and the Army will continue to look for new and innovative ways to improve the management of our shrinking resources.

Total Quality Management (TQM)

Total Quality Management is a comprehensive, structured, disciplined management methodology directed at improving organization effectiveness. It focuses on the achievement of continuous process improvement, through total employee involvement, in order to simultaneously increase quality and reduce the cost of products and services.

The Army can achieve long-term quality and productivity improvements through the implementation of TQM. Dedication to the TQM methodology of continuously improving all work processes will result in technical advantage, lower costs, shorter development time, and better support for soldiers, civilians, and their families.

The Army fully endorses TQM as a strategy for achieving improved quality, productivity, and efficiency. In recognition of its importance, TQM implementation was centralized in the Office of the Under Secretary in 1990.

An internal Army review of TQM has identified five conditions common to organizations that have successfully implemented TQM: an effective leader; a concept of operations; task organization; clearly established authority relationships; and a plan. Training is essential. Training starts at the top. Thereafter, it must be synchronized with the organization's implementation plan. Training is accomplished as needed to achieve specific objectives. The Army approach to TQM implementation is action oriented. Explicit actions are taken to accomplish goals derived from the leadership's vision for the organization. In general, the goal of TQM is ever-increasing productivity and customer satisfaction. In the Army, this translates directly into continuously improving training, unit readiness, and combat effectiveness.

Following the TQM methodology, the Army is working with suppliers. The application of TQM is being emphasized in the Army's acquisition process to ensure that the Army receives best value from industry. This requires contractors to demonstrate internal, process-oriented management practices directed at improving the material and services that the Army purchases.

Nontactical Vehicles (NTV)

To reduce the costs associated with our nontactical vehicle fleet, the Army began a program in 1986 to consolidate the CONUS-based NTV fleet with the General Services Administration (GSA) interagency fleet. As of September 1, 1990, approximately 42,000 vehicles of the 80,000 vehicle Army NTV fleet are being leased from GSA. At the completion of the consolidation program in FY92, approximately 55,000 Army NTVs will have been transferred to the GSA. Presently, the Army is coordinating with GSA and the major overseas commands to expand the consolidation program overseas.

As a direct result of the consolidation program, to date, the Army has realized a one-time cost savings of $28 million or an average saving of approximately of $666 per vehicle per year. The Army projects that we will realize a total cost saving of $37 million when conversion is completed in FY92.

Information Mission Area Programs

The Department of Defense has several management initiatives to consolidate similar information management services. Army Data Processing Installations and Central Design Activities will be consolidated during the 1990s to reduce the fixed cost of providing information mission area services. Early actions to achieve these savings include the consolidation of automated data processing resources in the U.S. Army Materiel Command from 24 to 5 sites. Future actions will include consolidating sustaining base information systems under our Sustaining Base Information Services initiative. This will allow the Army to modernize our sustaining base software applications and provide a common user infrastructure at central locations.

To reduce the cost of providing information services, Information Systems Command is developing a leaner, more effective organization. The restructuring of the command will involve a move to an area support concept for providing services. In the process, administrative overhead functions will be consolidated to achieve increased manpower efficiencies.

Corporate Information Management is a DOD management initiative to refine the way the department manages information. It was established to develop concepts to improve business processes, to increase management efficiencies, and to reduce redundant information systems. Functional work groups are examining information-intensive areas, such as warehousing, materials management, payroll, personnel, financial operations, contract payments, medical, and government-furnished property, in search of other possible applications. The Army is participating in these functional work groups and has proposed several Army systems for interim use.

Legal Activities

To promote increased managerial and budgetary efficiency in the handling of our civil litigation cases, the Army opened a consolidated Litigation Center in Arlington, Virginia, in August 1990. As the Army responds to changing world conditions by implementing force reductions, realigning base operations, and decreasing resources allocated for procurement, our policy choices and actions implementing those decisions will be subject to diverse legal challenges before numerous administrative and judicial bodies. The Litigation Center provides a vital new component in coordinating and effectively responding to this increasingly complex litigation caseload.

Before creation of this center, our five functional components were geographically dispersed at four different locations throughout the Washington, D.C., area. Consolidation eliminates redundant overhead costs and substantial transportation expenses and permits greater economies through sharing of administrative and automation support services. Further, it provides an opportunity, in complex cases that impact upon more than one division, for interaction and coordination of remedies.

The Litigation Center is now the focal point for all Army civil litigation activities. It not only defends Army and DOD resources from claims made by others but also handles the Army's own claims and seeks monetary recoveries on behalf of the Army and DOD. To accomplish this mission, the Litigation Center is organized into five functional components: Contract Appeals, Procurement Fraud, Litigation, Environmental Law, and Regulatory Law.

The United States Army Claims Service (USARCS) manages the Army Claims System, which investigates, processes, and settles noncontractual claims against and in favor of the U.S. Army. These include personnel claims, some tort claims, claims under reciprocal international agreements, and other miscellaneous claims. In support of its mission, USARCS has 76 claims field offices in the continental United States plus 4 overseas command claims services with responsibility for an additional 56 claims field offices. These offices are staffed by approximately 155 full- and part-time attorneys supported by several hundred claims investigators, examiners, and clerks.

Under the Personnel Claims Act, soldiers and civilian employees are compensated for property lost, damaged, or destroyed incident to service. As many of these personnel claims stem from loss and damage to soldiers' property during government-sponsored shipment and storage, an important part of the Army claims program involves recovery of money from liable third parties. In

FY90, Army claims offices recovered $14.8 million from carriers and warehouse firms, an increase of $1.9 million over FY89.

Using the Federal Claims Collection Act and the Federal Medical Care Recovery Act, Army claims offices also assert affirmative claims to recover money from someone who has committed a tort for the value of medical care the United States provides to injured service members and family members and for damage to government property. In calendar year 1989, Army claims offices collected on 6,929 such claims, recovering $12,750,454. This is the highest total for any Federal agency. In the first six months of calendar year 1990, Army claims offices collected on 3,992 such claims, recovering $6,755,749. Based on these mid-year figures, both the number of recoveries and the amount collected in 1990 are expected to increase significantly over 1989.

To more efficiently manage the growing number of claims, USARCS designed an automated data base system. The result was the Claims Legal Automated Information Management System (CLAIMS), an automated data system for recording, storing, retrieving, and reporting claims information. It is designed to automate the administrative processing of personnel, tort, and affirmative claims and to provide claims personnel with timely and accurate data, claims management reports, and budget information for claims office management.

While the overall automated system is still being implemented, CLAIMS has made a major contribution to the Army claims system. It has promoted data standardization, uniform claims processing, and simplified records management. The system has expedited the processing of carrier recovery actions, resulting in a more effective program and increased collections from carriers and warehousemen.

Strategic Logistics Program (SLP)

The Strategic Logistics Program is a long-term initiative to define functional logistics requirements for operating Army logistics beyond the year 2000. SLP encompasses a variety of initiatives with the objectives to create a "seamless" logistics system, achieve sustainment imperatives for combat logistics, integrate logistics management with battlefield management, reduce inventories, improve readiness and sustainment, and meet Defense Management Review Decision savings.

The major short-term objective of SLP is to achieve substantial savings from FY91 to FY95. Near-term efforts to accomplish this task include converting reparable spares to stock funding and integrating wholesale and retail logistics.

Mid-term initiatives include implementing a single stock fund and focusing on logistics doctrine and systems changes required by the Corporate Information Management initiative. Long-term initiatives encompass efforts to develop a master plan for future logistics support.

A major wholesale and retail logistics integration initiative under the SLP umbrella is the Objective Supply Capability (OSC). This is a series of automation and communications technology enhancements to Logistics Standard Army Management Information Systems. The initiative will reduce the order segment of order ship time from up to 15 days to less than 1 day by redistributing retail stocks within a geographic region and passing requisitions to the wholesale system when necessary. At the unit level, requisitions still will be entered into a microcomputer; however, the requisition automatically will be sent electronically to a centralized database, or "gateway." The "gateway" will determine and initiate the appropriate course of action required to fill the requisition and will provide immediate feedback to the requester. OSC will reduce excess inventory and associated handling costs through increased management control over retail stockage. When fully implemented, OSC could provide savings of more than $1.2 billion by cutting procurement, pipeline, and inventory costs.

Initial testing of OSC was completed at Fort Hood, Texas, in December 1990. OSC will be extended to Operation Desert Storm to assist in the management of stocks in Saudi Arabia.

Base Realignments and Closures

The Army stations forces to support the national military strategy. The national military strategy drives the size and mix of the force, which in turn dictates the size and types of installations the Army must maintain to ensure a trained and ready force. The changes in the international environment, coupled with a diminishing flow of resources, have required the Army to reexamine the force and base structure requirements for executing the strategy.

The Army must seek greater efficiencies in stationing forces both at home and overseas. As the force and the attendant funding continue to shrink in response to developments in the international security environment, so must the installation structure if we are to maintain quality facilities and work environments for our soldiers, civilian employees, and family members, now and in the future.

Accordingly, the Army is continuing to pursue previously announced base realignment and closure initiatives.

The Army's base realignment and closure process to date can be thought of as three distinct rounds or stages. Each round builds upon its predecessor in a clear, coherent manner with the intent of molding an efficient, modern base structure that will support the force effectively as the Army transitions into the next century.

The first initiative (Round One) is the execution of the base realignments and closures directed by the Defense Authorization Amendments and Base Closure and Realignment Act of 1988. The Act established the authority for the Secretary of Defense to charter an independent commission to examine ways in which DOD could eliminate or reduce unnecessary and unaffordable installation infrastructure. The commission delivered its recommendations to the Secretary on December 29, 1988. These recommendations require the closure of 76 installations (including 53 stand-alone housing sites) and dictate realignment of activities and units on a minimum of 57 other Army installations.

The commission "assumed for the purposes of its review that force structure would retain the size and configuration outlined in currently approved plans;" however, its recommendations do not hinder the Army's ability to pursue additional proposed realignments and closures, which reflect the substantially revised force structure requirement for the 1990s. This is because the commission's analysis focused on the installations and their utility in supporting the force and not on the force itself. The commission's work provided the Army with an installation structure that is better tailored to support the force, is more economical to operate, and provides the Army with a clean baseline from which to move forward as we reshape the force and supporting infrastructure.

The Army is proceeding with the evaluation of several realignment proposals reported to Congress in conjunction with the FY91 Budget (Round Two). Beginning in 1987 and throughout the commission's deliberations in 1988, the Army refocused our planning to reflect the changes occurring in the national security environment. While the commission's focus was on streamlining the Army's installation structure to bring it in line with current requirements, the second round of realignment and closure proposals reflects the Army's initial transition to a smaller Army in the 1990s. Reductions in the force clearly require the downsizing of the installation support structure.

The third initiative (Round Three) is the implementation of the Army's proposals to close or reduce operations at 113 installations and sites overseas. These proposals are a direct result of the force structure reductions programmed overseas during the next few years. The proposals identify 101 sites in Europe, including the disestablishment of 2 military communities in Germany and the closure or reduction in operations at 12 sites in Korea. Before Operation Desert Storm, the majority of the sites were scheduled to begin closing or scaling back in FY91 with the remainder beginning in FY92 or later. This initiative reflects the Army's transition to a more CONUS-based force while providing adequate facilities and infrastructure for our forward-deployed forces. The exact timing of the closures will be revisited at the conclusion of Operation Desert Storm.

Any future major base realignment and closure actions will be done in accordance with the Defense Base Closure and Realignment Act of 1990. The act requires a significant restructuring of the mechanism by which the Army pursues realignment and closures and will affect our realignment and closure activities through the year 2000. The legislation directs the formation of an independent commission to review base realignment and closure recommendations made by DOD during the next 5 years. The legislation requires the commission to convene in calendar years 1991, 1993, and 1995 to assess and evaluate base realignment and closure recommendations from all services and to forward their recommendations to the President and eventually to Congress for approval. This new legislation also directed the Army to cease all major realignment and closure actions that would impact individual installations beyond thresholds established in 10 United States Code 2687.

Consequently, the Army has withdrawn realignment and closure proposals that exceed these thresholds, including many of the proposals originally announced as part of the FY91 budget. All future proposals that breach the 10 USC 2687 limits will be referred to the commission established by the legislation. The new legislation does not, however, affect the execution of base realignment and closure initiatives mandated under Public Law 100-526 (which were proposed by the earlier independent commission and approved by Congress), FY91 proposals that do not exceed 10 USC 2687 thresholds, or those which occur outside the continental Unites States.

We are continuing the work necessary to analyze our base structure and support the commission. As the Army's force requirements continue to evolve, so will our review of our installation structure. The Army continues to fully support the concept of closing unneeded installations and consolidating operations to generate long-term savings and operational efficiencies. The Army will pursue, when and where it makes sense to do so, further consolidations, realignments, and closures. The decision to do so will be dictated by the prevailing fiscal situation, the country's evolving security commitments, and the need to maintain a quality installation infrastructure for the Army of the future. Further, the Army pledges to help minimize the hardship on all involved -- soldiers, family members, civilian employees, and host communities -- by aggressively seeking ways to ease the transitional difficulties that inevitably accompany installation closings and realignments.

X. Resources

The Army's budget has been fashioned to maintain a trained and ready force.

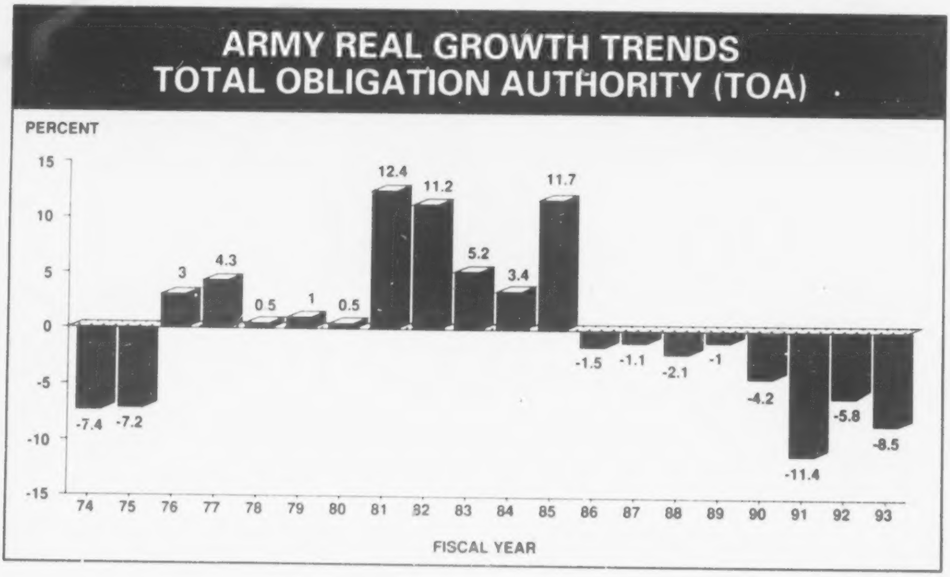
Status of the FY91 Budget

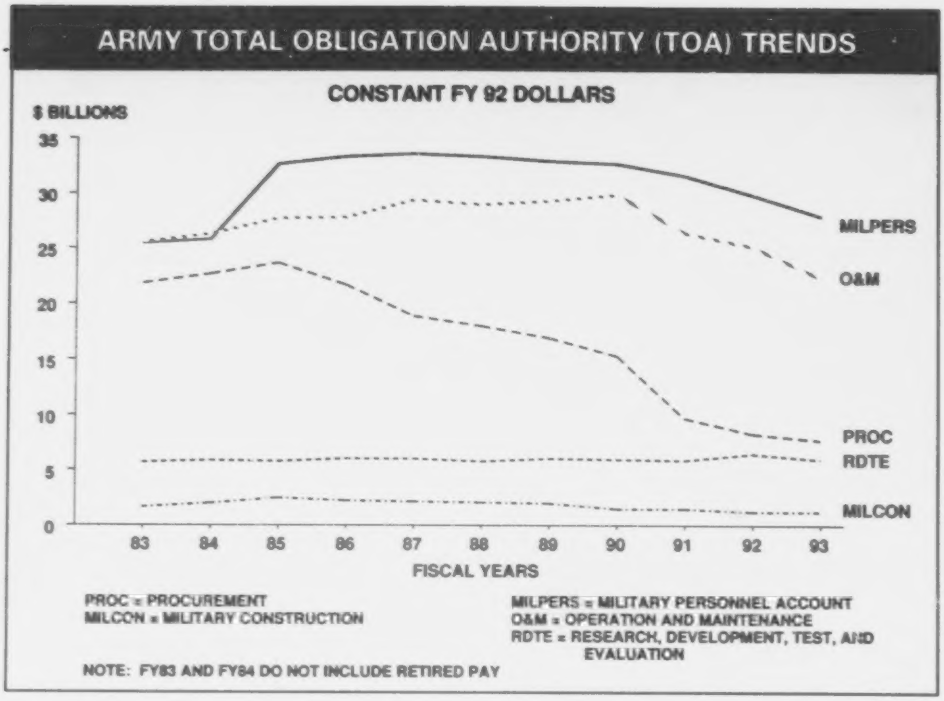
The FY91 Department of the Army budget provides a Total Obligation Authority of $72 billion, a reduction of 7.9 percent from FY90. The budget takes Active Component end strength down to a new total of 702,170. It simultaneously requires the Army to reverse planned end strength reductions in the Reserve Components and to pay for restoring FY89 strength levels by transferring funds from the Operations and Maintenance account. The budget places a restriction on permanent change of station moves to Europe and reduces the European end strength ceiling by 36,000.

As a result of Operation Desert Storm, the Army will be unable to meet the end strength reductions designated for FY91. Similarly, funding reductions that would have accompanied these cuts also will be beyond reach. Once the operation has been completed, and when the international situation permits, we intend to continue our plans to shape a smaller, capable Total Force.

In the investment accounts, the budget continues research and development support for Armored Systems Modernization, the Armed Helicopter Improvement Program, the Air Defense Antitank System, and the Light Helicopter. In addition, funds were provided for procurement of additional Bradley fighting vehicles and continuation of Abrams tank production.

The real growth trends chart graphically depicts the downward real growth of the Army budget; FY91 is the





ARMY TOTAL OBLIGATION AUTHORITY (TOA) TRENDS

CONSTANT FY 92 DOLLARS

PROC = PROCUREMENT
MILCON = MILITARY CONSTRUCTION
MILPERS = MILITARY PERSONNEL ACCOUNT
O&M = OPERATION AND MAINTENANCE
RDTE = RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

NOTE: FY83 AND FY84 DO NOT INCLUDE RETIRED PAY

sixth straight year of real decline. Because of this overall trend, the budget does not provide adequate funding for depot maintenance and real property revitalization requirements. Thus, backlogs in depot maintenance and facilities repair will grow, a trend likely to continue in subsequent years. Likewise, revitalization through new construction has slowed considerably because of reductions in the military construction accounts.

The current commitment of more than 275,000 Active and Reserve Component soldiers to the defense of Saudi Arabia and the liberation of Kuwait marks the largest deployment of U.S. combat power since the Army was deployed to Southeast Asia in the 1960s; furthermore, this deployment took place far more rapidly. It should be recognized that this capability to react on short notice is the result of a decade of investment and effort made possible by the support of Congress and the American people. Maintaining this capability as we draw down the force will require informed decisions and careful management.

FY92/93 Budget Overview

The Army budget continues to decline in real terms. The FY92 budget request is $71.3 billion in total obligation authority, which represents negative real growth of 5.8 percent from FY91. The FY93 budget proposes an even lower figure of $67.9 billion. The Total Obligation Authority (TOA) chart shows how these trends are reflected in our major spending categories. The Army has made difficult decisions, based on our views of the requirements of the rapidly changing security environment, that will provide a smaller but flexible and capable land force for the future. Although the breakup of the Warsaw Pact has reduced the probability of major East-West conflict in Europe, events in other parts of the world have confirmed the requirement for a versatile, deployable, and lethal Army able to respond to new and emerging threats.

Recent history has validated the six imperatives we use in shaping our force: quality soldiers, forward-looking and effective doctrine, appropriate force mix, tough and realistic training, continuous modernization, and leader development. We have vigorously adhered to these imperatives to guide resource decisions in assembling this budget. Although the FY92/93 budget submission does not include Operation Desert Storm funding requirements, it is structured to allow the Army to efficiently pursue our other two vectors -- maintaining a trained and ready force to meet ongoing commitments and to be ready for rapid action in unforeseeable contingencies; and shaping an effective Total Force for the future.

Quality Force

Maintaining the quality of our soldiers and civilians is an overarching imperative for the fielding of a trained and ready force. Quality people are trainable people, fully capable of leveraging the technological advantage provided by modernization programs. They grow into confident and competent leaders, as they have been doing with visible results over the last decade. Quality soldiers and their leaders produce the synergy that enables us to take maximum advantage of our doctrine, which in fact is predicated on our ability to produce boldness and innovation in our soldiers and leaders. Our quality soldiers, together with aggressive, tough, and realistic training, are the foundation of a trained and ready Army.

The recruiting and retention of a quality force depend on the willingness of our dedicated young men and women to volunteer for service. We have supplemented this patriotic sense of purpose successfully with a tailored program of incentives for recruitment and retention. Fundamental to these incentives is a compensation package that encourages prospective soldiers and civilians to join the force and to continue their service. This package includes not only the more obvious elements of pay, promotions, allowances, and bonuses, but also programs that provide for the quality of life our Total Force deserves.

To improve quality of life for our Total Force, following the Army Community of Excellence principle of excellent facilities, we have instituted the "Whole Neighborhood" revitalization program. This is a long-term program, beginning with pilot projects at two installations in FY92/93, to bring our overaged housing units, utilities infrastructure, and recreational facilities up to current DOD construction standards. To provide for the medical needs of our force, 6 additional Primary Care of the Uniformed Services (PRIMUS) clinics are funded, bringing the total to 16. CHAMPUS also is fully funded. These and other investments in quality living environments and services will encourage retention of the excellent people that characterize our Army today.

With the reduction in overseas deployment, we have restructured the military construction accounts with emphasis on CONUS. The FY92/93 request for construction overseas has decreased to 4.5 percent of the military construction account. Only essential mission, health, safety, and environmental projects are being funded overseas. For other overseas construction projects, we are working to shift the cost to the host nation.

Doctrine

The Army's AirLand Battle doctrine forms the set of guiding principles that determine how we will fight. As such, doctrine provides the underpinning for resource decisions: designing force structure, determining training and leader-development requirements, and setting modernization priorities. The FY92/93 budget reflects the Army's allocation of resources to ensure we retain the capabilities our Nation requires to deter war and to prosecute conflict successfully if deterrence fails. As we reshape the Army, doctrine -- continually refined to meet the needs of an evolving national security environment -- will remain the guide for our transition into the 21st century.

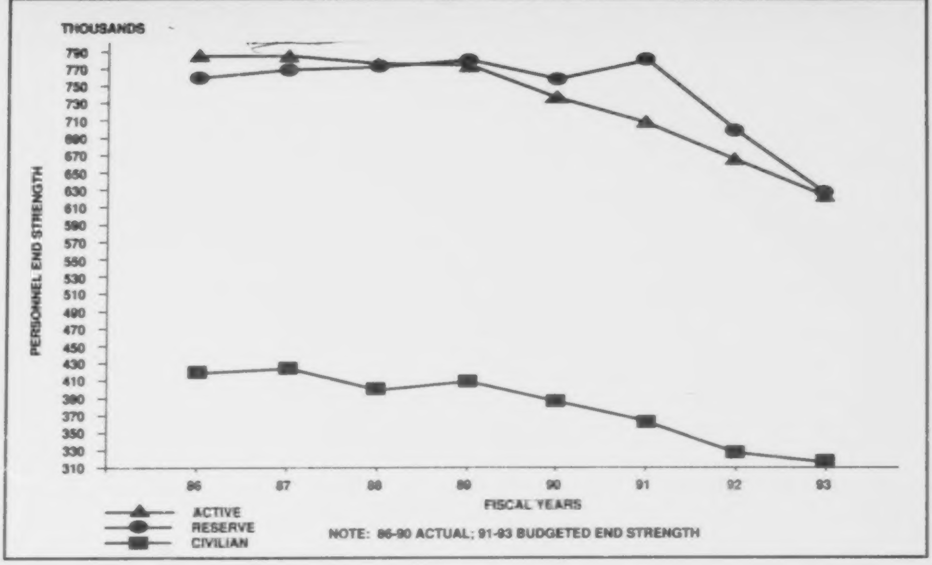
Force Structure

The Army's budget and program reflect the changed security environment in Europe that made it necessary to reshape our force structure. They also reflect the current domestic fiscal situation that demands reductions in federal spending. The Army of the future will be a more CONUS-based force, postured for force projection operations and the generation of additional forces from the CONUS base. A reassessment of our basing structure also will enable us to achieve savings in the general support infrastructure through streamlining of management and support functions. The above two factors have enabled us to program significant strength reductions in keeping with the realignment of our forces.

Army budgets have reflected plans for these strength reductions. We have removed in excess of five brigade equivalents from the Army since FY88. The FY92/93 budget reflects the continuation of our efforts to reshape the force. As the personnel strength chart following indicates, the budget would reduce our Total Army end strength from FY91 levels by 124,000 in FY92 and by 239,000 by the end of FY93. These reductions allow for a fully manned force at lower authorization levels, thus correcting a chronic shortfall in NCOs. Commensurate with the reductions on the military side, civilian end strength would fall by 34,000 in FY92 and 48,000 in FY93, as measured from the FY91 levels. These reductions are in accordance with the Army Civilian Work Force Reduction Plan, which will be submitted to Congress separately.

It is important to bear in mind that the budget was constructed with the understanding that Operation Desert Storm requirements would be dealt with separately. Thus, end strength transition plans will clearly need to be adjusted when the operation is over. As of 31 December 1990, the Army was manned at a level in excess of 825,000 (including almost 86,000 activated members of our Reserve Components), reflecting the requirements of Operation Desert

ARMY PERSONNEL STRENGTH



NOTE: 86-90 ACTUAL; 91-93 BUDGETED END STRENGTH

Storm and its ancillary support. These numbers will grow before they begin to come down. To reduce this level back to the glide path planned before the war will require careful management and certainly a delay in the original drawdown plans. The Army remains committed to prudent reshaping of both the fielded force structure and our supporting infrastructure in a manner consistent with sustained readiness.

Training

To ensure that the excellence of the force is retained and realistic training is maintained, the Army continues to support high readiness levels by budgeting for an active force operating tempo (OPTEMPO) of 800 miles annually for pacing ground vehicles and 14.5 flying hours per month for aircraft. The OPTEMPO for the Reserve Components is equivalent to that of the active force. USAR OPTEMPO is funded at 200 miles annually for ground vehicles and 8.1 flying hours for aircraft. Comparable figures for the ARNG are 288 miles and 9 hours. The fact that these levels are unchanged from the FY90/91 budget reflects the importance we attach to maintaining adequate levels of training throughout the Total Force as we reshape our Army.

The Master Plan for the Combat Training Centers is funded fully. FY92 funding supports 33 battalions rotating through the NTC, 12 battalions through the JRTC, 26 battalions through the CMTC in Germany, and 14 division and 3 corps rotations through the BCTP. FY93 funding supports 35 battalions through NTC, 16 battalions through JRTC, 26 battalions through CMTC, and 15 divisions and 2 corps rotations through the BCTP.

Modernization

Research, development, and acquisition programs will provide for improved warfighting capabilities in armor, anti-armor, deep attack systems, aviation, forward area air defense systems, and command and control. We have succeeded in protecting the foundations of future modernization, but resource constraints impacted relatively more severely in the near term, as shown on the TOA chart. We have taken 25 percent of the funding out of our modernization accounts. To meet funding constraints imposed over the last year, we have either terminated or delayed more than 70 programs. We have curtailed production of lower-priority warfighting systems and limited new starts to those of the highest warfighting value. On the other hand, emphasis on improving the lethality of future weapon systems is maintained, as we preserve steady funding for research and development and investment in the technology base. Thus, we have accepted some risks to uphold near-term readiness and our commitment to preserving the long-term technological edge.

Leader Development

The Army continues to provide adequate funds for leader development programs at all levels. Maintaining funding in these accounts, in the face of an overall decline in real resources, did not come easy and reflects an enduring commitment to this key aspect of tomorrow's quality force. The FY92/93 budget provides full opportunities for the training of our current leaders and maintains our approach of progressive and sequential assignments and education to prepare them for future leadership responsibilities.

Management Efficiencies

Implementation of the approved Defense Management Report (DMR I) decisions will result in substantial savings. Anticipated savings already have been reflected in the budget for operations at supply depots, maintenance depots, finance and accounting centers, and inventory control points as well as for standardizing information systems. In addition, we are participating in the DMR II management review. As part of this process, the Army has proposed a series of 22 initiatives, collectively known as Army Management Review II. These initiatives are expected to produce efficiencies of approximately $1.3 billion between FY92 and FY97.

Summary

The budget continues our transition to a versatile, deployable, lethal, but smaller Army. This path is a reflection both of the evolving realities of the international order and our domestic fiscal environment. At the same time, an enduring reality is now being demonstrated convincingly in Operation Desert Storm -- the need to maintain trained and ready forces, like those serving at the cutting edge of the multinational coalition now engaged in the liberation of Kuwait. We have tailored our programs, now and for the future, to be consistent with these realities. Thus, the budget meets the dual requirements to sustain readiness and shape the force for the future. It upholds our commitment to maintain the essential capabilities of the force by providing for quality men and women, excellence in training of soldiers and leaders, and a technological edge in equipment. It economizes as much as possible in other areas, including the overall size of the force, in order to preserve resources in these key areas. Finally, it provides for a measured, orderly, and deliberately managed transition to the strategic Army our Nation will depend on in the future.

The Army's FY92/93 budget continues to emphasize readiness and personnel quality.

TWENTY-DIVISION ARMY

Senator INOUYE. Thank you, General. I have a book full of questions here, but I would like to just touch upon broad issues if I may.

About a year ago, the Department of Commerce of our Government was in the process of organizing a special trade mission to Iraq, to Egypt, and to Saudi Arabia to sell ballistic missile technology, high-grade computers, and equipment of that nature.

When this matter was brought to our attention we called upon Secretary Cheney and he saw the potential problems involved. He called upon the Commerce Department to stop that program.

There were some in the Congress who about that time got concerned about Saddam Hussein and tried to suggest that sanctions should be imposed.

I cite these, not as criticism, but to just suggest that we, of this committee, who are called upon to make decisions based upon projections and certain assumptions, oftentimes make mistakes.

Now here we are. We are being called upon to make decisions for the future, extending into fiscal year 1995, based upon certain assumptions, that nothing is going to happen.

We had assumed a year ago nothing would happen, but something big did happen. One of the changes that we are called upon to approve is to reduce the Army from a 19 division to a 12-division force.

In this operation in the gulf, you had seven divisions, did you not?

General VUONO. Correct.

Senator INOUYE. Two divisions in Germany, one in Hawaii, one in Alaska, and one in Korea. That is 12 divisions right there.

Would you be able to carry out Operation Desert Storm in 1995 with a 12-division Army?

General VUONO. Mr. Chairman, with a 20-division Army—I include the Reserve component divisions—we could carry out Operation Desert Storm, but we could not do it on the timeline or with the flexibility that we had in carrying out Desert Storm in 1991.

We would have to make some fundamental decisions on mobilization much earlier than we had to in the past. We would not have the opportunity and the flexibility to move the forces the way we have done in the past 6 months.

So we could do it, but not on the timeline that we accomplished it this time.

Senator INOUYE. Would you be able to do it with the same efficiency and lethality?

General VUONO. Well, Mr. Chairman, that depends on the level of resources that we are provided for our modernization program, both our near-term buy and those systems that we have projected for the future; the light helicopter and armored systems modernization.

It also will be determined by the amount of funding we receive in our "Operations and maintenance" account, because if we have a smaller Army that is not trained and ready, then this country will pay the price.

So all of that put together says that we are making some very crucial decisions here that will have a tremendous impact on the Army of the mid-1990's and beyond.

ABRAMS TANK, BRADLEY FIGHTING VEHICLE, AND APACHE HELICOPTER

Senator INOUYE. Eight months ago and for many months before then, the favorite items of discussion were the failures of the Abrams tank, the Bradley fighting machine, and the Apache. Every other article I read about these three weapon systems indicated that this was a waste of money. It was bound to fail in combat.

How did they perform, Mr. Secretary?

Secretary STONE. Perhaps I can comment first on that, Mr. Chairman, and then leave it to the Chief to touch on the operational aspects.

You have mentioned three different systems. Let me say something about each one of them. In the case of the Abrams tank, I think that there is not a single piece of evidence that I have seen that indicates that the availability, the readiness, and the maintainability of that tank did not prove in the desert to be everything that we expected its characteristics to be.

Sure, we had to take care of the tanks in a very professional manner, but that is what the people were trained to do, and they did it and the Abrams' service proved to be exactly what we expected it to be.

I think that in the case of the Apache, one of the most gratifying results of the units that were deployed in Desert Shield was the General Accounting Office mission that went out in January and looked at the readiness rates specifically of Apache helicopters.

We had been reporting, during the last part of calendar year 1990, Apache readiness rates which were consistently well above the Army standard, and there were some skeptics. The GAO went out there and looked at those readiness rates. I met with the GAO when they came back in January and was most gratified to find that the GAO had indeed confirmed that the readiness rates we were reporting were, in fact, the rates that were being achieved.

In the case of the Bradley, again, exactly the same picture. The readiness of the individual units was consistently high and their performance was excellent.

General VUONO. Mr. Chairman, let me just add that from the time we deployed—through the buildup phase, through the preparation phase, and through the operations phase—those weapons systems performed superbly in a very harsh environment, probably some of the harshest environment that we will ever fight in.

I believe that when you have good weapons systems and you put them in the hands of magnificently trained soldiers, not just those who are firing the weapons, but those who are maintaining the systems; well, you saw the results.

So we are obviously very pleased with them, the way they performed. We intend to continue our efforts of not only maintaining those systems in the high state of readiness they are in, but to continue to push forward in technology to bring on the next generation of systems so that our soldiers will go onto the battlefield of the

21st century, if necessary, with 21st century technology. I believe the results will be the same.

MILITARY FORCE PACKAGE CONCEPT

Senator INOUYE. We have been advised by the Pentagon that the Defense Department is now suggesting that we should adopt a new concept, the so-called military force package concept, in which you will have a Pacific Command, Atlantic Command, a contingency command, and strategic command.

The Atlantic Command will extend from all NATO countries all the way down to Southwest Asia including the Middle East, et cetera.

The Pacific Command, as noted by the Chairman of the Joint Chiefs, will be primarily maritime. The Atlantic Command will be heavy armored, Army. And then you have a contingency mobile force and a strategic force.

You are the Army Chief, what do you think? How do you think that would work?

General VUONO. Well, Mr. Chairman, not only am I the Army Chief, but I am a member of the Joint Chiefs, and I agree because we have spent a significant amount of time in developing those force packages.

Our force generation model for the Army over the next 5 years fits into that new strategy and those new force packages. What we will have in the Army is a force projection capability that can respond immediately. In that force projection package will be a mix of armored, light, and special operations forces that can be projected wherever needed: the Pacific, the Atlantic, or some other theater.

We will also continue to have a forward presence element in our structure, smaller than in the past, but a forward presence in Europe, Korea, and elsewhere in the Pacific.

Then, finally, we have built into our plan a reconstitution element where you could reconstitute forces, depending on the nature of the contingency. This could range all the way to full mobilization, should you have to do that, for a major war.

So we would go from forward deployment, which we have now, to a force projection capability for our contingency force package. That force projection capability would probably be provided by primarily Active components with some Selected Reserve components.

Then as you moved further into the contingency operation, depending on what it was, you would bring in reinforcing units, some from the Active components and some from the Reserve components. Then further down the continuum, you would go through full reconstitution, which would be a mobilization case.

So I believe that what we have done in the Army fits nicely in our view of the world of the 1990's and beyond, and we have worked it in very close coordination with the Chairman of the Joint Chiefs of Staff.

END STRENGTH

Senator INOUYE. For this round of questions, this will be my last. You have been called upon to maintain a certain end strength for fiscal year 1991, reduce that in 1992.

But I note that as a result of Desert Storm, your numbers are going to be much, much higher than what you anticipated to end up with in 1991.

General VUONO. Correct.

Senator INOUYE. Which would require you to make precipitous cuts to meet the summit agreement for 1992. How do you propose to do that?

General VUONO. Mr. Chairman, we will not make the mandated end strength by the end of 1991, as you say. We will miss that because of Desert Storm.

We will then, as prudently as we can, attempt to get back on the glide path; but as you recall last year when I testified before your subcommittee, I said that you have to be very careful how many people you take out of the force in 1 year. I used the number of around 35,000 a year in the Active component, so that you could do the glide path very smoothly and not under-man units and affect readiness and not force out of the ranks in a haphazard manner a lot of magnificent noncommissioned officers and officers. That is still the case.

So what we would ask the committee for is relief from meeting the mandated 1991 end strength. We will need assistance in 1992, because in order to get back on the mandated end strength figure in 1992, we would have to make some precipitous cuts that are not in the best interests of the readiness or the quality of the force.

Senator INOUYE. It is not going to be easy, but we will do our best, General. As you know, in addition to all of the problems we have, there is a mismatch between OMB and CBO of a small amount of $2.8 billion.

General VUONO. I know that, Mr. Chairman.

Senator INOUYE. So we will try to find some.

Senator Stevens?

Secretary STONE. Mr. Chairman, before we go on to Senator Stevens, may I just put some figures in the record which will punctuate the Chief's and your comments here because it is such an important matter for us.

The Army today, in the middle of fiscal year 1991, is about 760,000 in the Active component. Now that includes a number of subcomponents which go into details that I do not want to take the subcommittee's time to address; but it includes some of the extraordinary additions that have been made for the Desert Storm operation.

Our end strength figure that we were originally attempting to reach by the end of fiscal year 1991 is about 702,000. We just do not see, at this point, how we can get down to 702,000 by the end of this fiscal year. It would do too much damage to individuals, and I recall that last year in the subcommittee hearing, we started talking about Captain Rudman and Sergeant Inouye, and it was the same discussion we were anticipating a year ago when we were talking about the ramp.

Well, today the ramp problem has become considerably worse and those figures exemplify it. It also is looking toward 1992 where our mandated end strength number is 660,000. So we have a better part of 100,000 people to try to get out of the force within the next 15 months. I just do not think we can do that.

We cannot do it and preserve the quality that the Chief and I have both talked about in our remarks.

Senator INOUYE. Senator Stevens.

Senator STEVENS. Mr. Chairman, I am sorry to have been late at the beginning. I had another meeting.

Let me start off by commending each of you because we think and know that you have been part of the leadership at the Pentagon that has provided this tremendous victory for our country, and on your tour duty, respectively in your positions, you have really, I think, performed excellently for the country.

Secretary Chairman, let me put my statement completely in the record if I may, that I would have made if I had been here at the beginning.

Senator INOUYE. Without objection.

[The statement follows:]

STATEMENT OF SENATOR STEVENS

I would like to join the chairman in welcoming you before the subcommittee, and in commending both of you for your leadership during the war in the Persian Gulf.

The performance of the Army in Operation Desert Shield and Desert Storm bears out the many hours of hearings and private conversations we have had over the past 10 years over the direction of the U.S. military.

The Army that fought to liberate Kuwait was the product of a national commitment to attract quality personnel to the military, provide them with an adequate standard of living and fair compensation.

To perform their mission, this Congress supported an unprecedented modernization of the Army's equipment, which is not yet complete.

Based on the performance of many of these systems in the gulf war—the Apache and Blackhawk helicopters, the Bradley and M–1 tank, the MLRS and ATACMS rockets—I believe we have reason to be satisfied with that investment.

The prosecution of both Operations Desert Shield and Desert Storm also validated the concept of an Army composed of quick reaction light divisions, as well as heavy tank units.

The ability of the airborne divisions to respond rapidly, and secure time for the heavy forces to come to bear was essential to the success of the war.

The immediate presence of U.S. forces, as directed by the President, heartened our allies, and made clear to Saddam that his aggression would go no further.

As you consider the future of the Army, I believe it is essential that this balance and range of capabilities be maintained.

Personally, I fear the planned reductions go too deep, and I know we will explore that issue during the course of this hearing.

I believe we have come too far, at too great a cost,to dismantle now, in the aftermath of victory, the fruits of 10 years of work and investment by this Nation.

I look forward to working with you on these matters.

Senator STEVENS. We have been over there twice, as you know, and have visited with the people that you dispatched to represent the Army. Everything we saw bears out what you have said.

Someone says they cannot hear me. Now that is the first time there has ever been that complaint in my life up here. [Laughter.]

General VUONO. I can hear you very well, Senator.

Senator STEVENS. Thank you.

Secretary STONE. I do not have any trouble.

Senator STEVENS. The figures you just mentioned, Mr. Secretary, were to be part of my first question. I was looking at 1992, however, the decline from 1992 is from 702,000 to 660,000, and we looked at the cost if we wanted to maintain the 1992 level, an end strength for 1991 through 1992, the cost would be $1.3 billion.

What is the extra cost of maintaining the current strength of 760,000 through the end of 1991? Do you know?

Secretary STONE. I do not have that figure. We will have to provide that for the record, Senator.

[The information follows:]

COST OF MAINTAINING FISCAL YEAR 1991 ACTIVE ARMY END STRENGTH

The increased cost of maintaining the fiscal year 1991 Active Army end strength at a 760,000 level is about $600 million. We will be refining this figure as decisions are finalized on redeployments and inactivations.

Senator STEVENS. Let me just put this, from this point of view of this Senator, I felt all along, and I think many agreed on this subcommittee, that the Army took too great a hit in that budget round, and that the rate of reduction of the Army, which is the backbone of our services, was too rapid, taking into account the fact that it is a volunteer Army, and we just cannot afford to take on the attitude that we can terminate volunteer enlistments which represent a contract with the Department of Defense and with the Department of the Army.

I hope that you will give us the figures and tell us what do you think is reasonable now. I know you are not supposed to recommend it, but if you say the maximum you should take out would be 35,000 in a year, then that would mean that the end strength of 702,000 is going to be somewhere around 740,000 at the end of this fiscal year.

And if that is the case, then the end strength for 1992 would be about the 702,000 figure. Now, I think we need those figures here to see if we can juggle some numbers and get there, notwithstanding the fact that CBO and OMB computers argue with each other all the time.

General VUONO. We will have a better fix on that over the next few weeks or so when we get more of the details of the specific redeployment, and understand how that will affect the reduction in the end strength. Obviously, it will be lower than 760,000, but it will not be near 702,000. It will be somewhere in between. We will try to get you that figure and then project that through 1992 for you, Senator.

[The information follows:]

ARMY END STRENGTH, FISCAL YEAR 1991–92

The Army will not be able to meet its fiscal year 1991 end-strength levels. The manpower buildup required for Operation Desert Storm will increase the Active component end strength to 745,000 soldiers in April 1991. As the Army releases soldiers whose retirements and separations were suspended, a final fiscal year end strength of approximately 710,000 soldiers is expected.

In order to regain the ambitious reduction targets projected prior to Operation Desert Storm, the Army must further reduce its force in fiscal year 1992 by approximately 50,000 soldiers to an end strength of 660,000 soldiers. This severe reduction would cause significant accession reductions and severe involuntary loss (reduction in force) programs.

Senator STEVENS. The first year, it seems to me, partially borne by the cost of maintaining a higher end strength, partially borne by the Desert Storm concept.

General **VUONO**. Yes; the supplemental.

Senator **STEVENS**. The supplemental, outside the budget.

General **VUONO**. Right.

Senator **STEVENS**. Will carry us through part way. I am more worried about 1992 and the outyears and what happens as we try to fit these in, and I think we would like to maintain a higher end strength at the end of the 5-year period than currently contemplated. At least, that is my point of view.

General **VUONO**. If I could comment on it. I agree with you that the problem will not be the 1991 end strength. We can solve that. It is that projection, 1992 and beyond, and the dollars associated with that, that we have to work with you on and give you as good and firm of a projection as we can.

[The information follows:]

COSTS OF DELAYING MANPOWER PROGRAM 1 YEAR

The following chart displays the approximate cost of delaying the President's Budget Manpower Program by 1 year. It includes training, maintenance, support, and pay.

[In billions of dollars]

	Fiscal year—				
	1992	1993	1994	1995	1996
OMA	$0.8	$0.8	$0.8	$0.8	$0.8
MPA	1.1	1.2	1.3	1.4	.9
Total	1.9	2.0	2.1	2.2	1.7

These estimates assume that the Active Army end strength will reach 535,500 by the end of fiscal year 1996.

FORCE REDUCTION PLAN

Senator **STEVENS**. Along with that, Mr. Secretary and General, I understood that during this period, we had extended enlistments. There were some enlistments that were destined to expire during this period since August.

Have we announced a policy now, what is going to happen to those who were extended unilaterally by the Government?

General **VUONO**. What we plan to do—it was a stop-loss procedure that we did—is to release those individuals, some of them as they come out of Desert Storm, and others who are in Europe and CONUS—continental United States—units, over a period of several months. We will release them based on the requirement for their particular specialty in their units. We will try to move them and discharge them as soon as we possibly can, as long as it is consistent with our readiness posture.

By the way, if I may just make a point on that, Senator, we have been gratified by the attitude of those young men and women who were very close to leaving the Army when we said they must stay. They have performed tremendously with very, very little concern.

I might say the same thing about the entire Reserve component callup, both the units, and then in January when we called up the Individual Ready Reserves. We have seen magnificent performances out of those young men and women.

Senator **STEVENS**. When the chairman and I were traveling over there, we asked in every area for people in the Army to meet with us and we met individually without their commanding officers. And I have to tell you, I am not sure about the chairman, but the people who met with me, there was not one gripe, although several of them told me they had been unilaterally extended and they were there and knew what their job was.

General **VUONO**. Yes, sir.

Senator **STEVENS**. It was a very heartwarming thing.

General **VUONO**. You have to be proud of them for that.

Senator **INOUYE**. The only gripe was MRE's. [Laughter.]

Senator **STEVENS**. We found a place to get rid of those.

General **VUONO**. They are getting better, Mr. Chairman.

Senator **RUDMAN**. It will never get better.

ADDITIONAL PATRIOT MISSILES

Senator **STEVENS**. We also had occasion to form a very fond, have a very fond regard for the Patriot, I guess you know. And it leads me to ask the question about the House action on the Patriot.

The House has proposed $58 million in R&D to upgrade the Patriot missile. They have funded the request for 158 missiles to replace those that have been eliminated from the inventory, but they added 500 more, not requested, I am informed.

And I would like to know what is the point of view of each of you concerning that, or whoever is supposed to answer the question concerning those additions. Do you support the additions, in particular the 500 Patriots that were not requested?

Secretary **STONE**. Senator, I will take the first crack at that, if I may. The Army acquisition objective for the Patriot missile is about 6,000 missiles, 60 percent PAC–1's as they are called, Patriot 1's, and 40 percent Patriot 2's.

We have depleted the inventory by the amount we fired in the action in Southwest Asia, and that amounts to approximately 150 missiles. We certainly would like to replace that portion of the inventory. So when you talk about 150 plus 500, that is probably in excess of what the Army's inventory requirements are precisely calculated to be.

But this gets into the question really of priority of investment. I think we would be perfectly comfortable having the additional inventory of missiles. But you get into a priority of investment of what we need more, and that is a very broad subject and the Chief may wish to comment on that.

But, before he does, if I could mention one other aspect of this problem. We are dealing in the PAC–2 area with the whole defense against ballistic missiles, the antiballistic missile objectives. And there you are getting into broader issues of competing systems, and there are several candidates.

The Patriot, as you know, was originally an air-breathing defense against air-breathing aircraft. It was modified in the PAC–2 to deal with missiles, and it deals very effectively with them, as we have found out.

But the technology, we believe, can be extended considerably beyond the PAC–2. We would like to have the opportunity over the next few years to look at some of those other systems, and we are doing that in the research and development phase today.

So from my perspective, I think the problem is not only a tactical one of what we need today, but also how we satisfy this technological objective over the next few years.

Senator STEVENS. Well, Chief, and again, I want to say, I understand this is your last appearance before the subcommittee, at least in terms of this type of appropriation.

I really am grateful to you for all of the guidance you have given us during the period you have been there, and we hope that you will go on to another important assignment before you are through.

But I am worried about this now. I am told this is $325 million for 500 Patriot missiles, that as good as they are, they are going to replace about 10,000 to 12,000 end strength.

In terms of our budget crisis right now, the question is, Do we need 500 Patriots in addition to the replacement of every one that was shot during the Iraq War?

General VUONO. Senator, I will have to go back and check that, but I do not believe the 500 has been funded. I think the request came over some time ago when we thought we would have to surge, but we did not use that many. I do not think that the 500 have actually been funded, and we will have to check that out. I was just discussing it with my budget officer——

Senator STEVENS. I appreciate it, if you would, for the record.

General VUONO. We will.

[CLERK'S NOTE.—The answer appears on p. 49 under the heading "Additional Patriot Missiles."]

MULTIPLE-LAUNCH ROCKET SYSTEM

Senator STEVENS. I understand the House deleted some MLRS replacements, which did not make much sense. But it is one of those things we are going to have to take a long look at.

General VUONO. Yes; the multiple-launch rocket system [MLRS] replacement we will need. What we are trying to do is to capture the data to determine the number of MLRS that we expended. We will provide that to the subcommittee just as soon as we can get it from the theater.

[The information follows:]

MULTIPLE-LAUNCH ROCKET SYSTEM

Based on preliminary data available as of March 18, 1991, Army Central Command [ARCENT] reported that [deleted] MLRS rockets were expended in support of Desert Storm operations. This number does not include dropped, damaged, or other nonoperational rockets.

ARCTIC WARRIOR EXERCISE

Senator STEVENS. I have one question I would pull out of the record and ask you to respond to concerning the performance of the M–1A1 against the T72 and T80 and what plans you have for further modernization.

I have taken more than enough of my time right now, but I would be remiss if I did not ask about our own situation in Alaska with regard to the 6th Light Infantry Division. They have just completed the joint service exercise, Arctic Warrior.

And I wonder if you could tell the subcommittee how that exercise came out? I know because there was a war going on, it was a much-restricted exercise, but still the people in that area did go through their exercise which is conducted every 2 years.

Can you tell us what is the situation with the light division and how did the Arctic Warrior exercise come out?

General VUONO. By any measure, that exercise met its objectives. I think you made a good point, sir, when you said that while we were fighting a war in the Persian Gulf, the rest of the Army was training and honing their readiness skills. That is what the 6th Infantry did on that particular exercise. They performed magnificently in a very tough environment, and the soldiers and the leaders in that unit are tough and disciplined. What we had was training at every level. Even though some of it had to be reduced in scope, we accomplished our objectives, and they did a magnificent job.

Senator STEVENS. Thank you very much.

Thank you, Mr. Chairman. I have one question I would like to leave for the record.

Senator INOUYE. Major Rudman?

LIGHT AND HEAVY DIVISIONS

Senator RUDMAN. General Vuono and Secretary Stone, let me just add to the compliments of the chairman and the ranking member, we are very proud of what the entire force has done, and because of some personal prejudices, particularly proud of what the Army did.

General Vuono, let me just ask you this question because it is quite misunderstood when you talk about divisions and forces.

You deployed seven divisions to the gulf. There were two light and five heavy, I believe.

General VUONO. Well, we put the 101st and the 82d in the lighter forces category.

Senator RUDMAN. Right; the others are not really all heavy; am I correct?

General VUONO. No; the others were heavy because we put in the 1st Cavalry, 24th Mechanized, 1st Mechanized, and the two armored divisions from Europe. So we had five heavy and two light divisions.

Senator RUDMAN. And how many combat arms battalions are in each of those light divisions?

General VUONO. Nine battalions.

Senator RUDMAN. The same model is has been for a long time?

General VUONO. Yes, sir.

Senator RUDMAN. So you had 18 battalions from the 2 light divisions and the combat strength of those battalions at full strength is how many approximately, General?

General VUONO. Probably around 600 or 700.

Senator RUDMAN. I was going to say around 700. So those divisions had somewhere in the vicinity of maybe 12,000 people?

General VUONO. No; those divisions are larger than that because of the unique capabilities in both the 82d and 101st. The 82d with their forcible entry capability and their increased antiarmor capability in terms of TOW missiles and helicopters, and the 101st with the tremendous lift capabilities they have which have proven out during the operation. Those divisions are larger. They are probably, I would say, about 16,000.

Senator RUDMAN. That is including the supporting arms.

General VUONO. Yes; it would include the whole——

Senator RUDMAN. I was talking about the actual nine battalions themselves. That would amount to about 12,000 to 14,000 people.

General VUONO. Right.

Senator RUDMAN. And then what about the heavy divisions?

General VUONO. On heavy divisions, we sent over 10 battalions. The armored division is a mix of five and five: five armor and five——

Senator RUDMAN. So you had about 50 combat arms battalions in those 5 heavy divisions?

General VUONO. That is right.

Senator RUDMAN. Also, with a slightly larger strength, I believe; am I correct?

General VUONO. Yes, sir.

Senator RUDMAN. What, about——

General VUONO. About 800.

Senator RUDMAN. Eight hundred. You had about 40,000 people from those divisions, am I correct, in what we would call the combat arms?

The point that has to be made, because I think we have had a very good discussion here led by the chairman and the ranking member, that with this enormous force that was over there, there were essentially 52,000 soldiers, more or less, in the combat arms that were at the point of that assault from the Army's point of view.

I am not taking away from the supporting arms. They are very important. But in terms of the number of troops, you talk about 500,000 American forces there, we talk about the Iraqi army. You had 50,000, 55,000 Americans in combat arms who were at the point of that assault which fortunately only went 100 hours, but it might well have gone longer. Am I correct about that?

General VUONO. In terms of armor and infantry, that is about right.

Senator RUDMAN. Armor and infantry——

General VUONO. But as you said, you are making the point, I know, but it is a combined——

Senator RUDMAN. And the artillery would have added probably another 15,000 to that, but basically you had a relatively small force of combat arms, which brings me to my point.

If this same kind of an event occurred under the current plans of a stepdown to 12 active divisions, and just keeping the total force aside, the Reserves and the Guard, for a moment, I come to the conclusion that we could not have accomplished what we accomplished in 1994 or 1995 with the force structure that has now been imposed by the Department of Defense and by the National Command Authority. Am I correct?

General VUONO. Not in the timeline that we did it. Because in order to have built up the force to the degree we did, as rapidly as we did, we would have to reconstitute from the Reserve components, and we would not be able to do it over the short timeline that we did it in Desert Storm.

Senator RUDMAN. And, of course, under certain situations, we did not know what Iraq's intentions were when you sent the 82d over there. They were like a trip wire out there. So you did not know what his intentions were.

General VUONO. No, sir; and that points out that in certain contingencies, we will have little or no warning, and that we will have to move quickly.

Senator RUDMAN. Which I think is my central point. I have a deep concern when I look at the amount of money that we are spending for defense, particularly for the combat arms which amount to 9 battalions in a light outfit and 10 in a heavy outfit, I really wonder whether or not we are doing the wise thing here. I really hope, Mr. Chairman, that this committee and the Armed Services Committee, look very closely at what we do in terms of capability because your history lesson to this committee this morning was right on target.

I mean, what happened to the U.S. Army in Korea, not only just in 1950, but actually up until about 1951, is almost a crime.

And you know, I can see a situation where if you get down to 12 Active divisions, and with a few combat battalions as your main force. You can talk about a force of 1 million people, but you have got a ground force with supporting arms of a very small number of people. Of course, you can add the marines to that, which is very important, but even with the Marine Corps strength—and they have a slightly different tooth-to-tail ratio because they tend to be lighter—nonetheless, it is still a relatively few number of Americans.

Well, that is just an observation. I assume that when the Defense Department sent forth this structure, you had no choice but to salute and head off to the hill. You have to accept what they impose upon you. But would you agree with me general that you would be more comfortable several years from today if you had a little bit more in the way of active duty units?

General VUONO. Certainly. Certainly, what we have presented—and I think that Chairman Powell told you yesterday—is the bare base force and we could not go any lower than that. Given more resources, we would like to have more. But we have operated within the top-line level we were given, and this is the force, the total force, that we felt was the best we could provide. I would hasten to add that just having that force by itself without the training, readiness, and quality would really put us in a very difficult situation.

Senator RUDMAN. So you would rather have the 12 units highly trained than 15 that were not trained at all? Do I understand that?

General VUONO. Absolutely, Senator. It was our call to protect quality, readiness, and training.

Senator RUDMAN. I have asked this question before and I think I have had an answer, but I am not sure if I can put my hands on it. Will you provide for the record, Mr. Secretary, the total cost of maintaining one light division and one heavy division including the compensation of the troops, the O&M, and the overall maintenance of the force? I would like to see the cost of one light division and one heavy division because it is a point that I think the committee might well want to look at.

[The information follows:]

Annual Cost for a Heavy and Light Division

The costs for both a heavy and light division are:

Type	AMMO	OMA	MPA	Total	Strength
Heavy (armored)	$21	$157–$185	$539	$717–$745	17,260
Light	12	60–64	354	426–430	11,187

All cost estimates are based on the current estimates available for OPTEMPO and parts costs and are in millions of current fiscal year 1991 dollars.

Equipment operating costs are based on full table of organization and equipment generic divisions consisting of three maneuver brigades and full division support command located in CONUS. Units included represent only the division increment and do not include additional combat support or combat service support.

The armored division is equipped with M–1 tanks in six tank battalions, Bradley fighting vehicles in four mechanized infantry battalions, and AH–64's in two attack helicopter battalions.

The light infantry division has its normal complement of nine light infantry battalions and two assault helicopter companies equipped with Blackhawks.

The costs shown are estimates of annual expenses to maintain, operate, and equip type divisions. These costs do not include the initial capital investment for equipment such as tanks, personnel carriers, and aircraft. Also not included are the base operating costs such as pay of civilians who maintain the installation. OMA costs may vary as much as 50 percent in the actual amounts directly or indirectly associated with specific units.

Because these are generic divisions, the costs are considered to be representative and should only be used for comparison. The actual costs will vary according to OPTEMPO, geographical location, personnel fill, and readiness.

HELLFIRE SYSTEM AND COPPERHEAD

Senator RUDMAN. Second, and I will be brief on this, we had a great debate about weapon systems here for the last 10 years in this committee, but we generally found that the faults were not fundamental. The M–1A1 tank was a great example. Can you give us any anecdotal evidence that does not breach classification? I am particularly interested in two systems: the Hellfire system on board the Apache; and the Copperhead, which we argued a great deal about in this committee, but concluded that it would work when it was finally perfected. Can you give us any evidence on those two, or is it a little early for that?

Secretary STONE. I will give you one story, Senator, and maybe the Chief will say something about the Copperhead. In the case of Hellfire, I might point to the first action on the first night of the outbreak of hostilities after the bombing phase—excuse me, at the beginning of the bombing phase—where six Apaches went out. I personally have looked at the gun films that came back from that action. They went after the ground communications installations of the Iraqi army forward down in the southern part of the country. The Hellfire success rate in that action, I think, was 15 out of 15. It was very successful, and at some point—we are trying to put those films together into a package—we would be glad to show it to you.

Overall, we think that the reliability of the Hellfire—I talked earlier about the reliability of the Apache itself—as it was used on the Apache was excellent.

Senator **RUDMAN**. How about the Copperhead? We are very interested because there is great appeal to firing long-range artillery which could find enemy armor. How did that work?

General **VUONO**. We do not have all the data in in terms of the number of Copperhead rounds we fired. But early on in the operation, I received some feedback that we had fired several Copperheads and that they performed just like we wanted them to perform, lasing in and then firing. So I do not have the anecdote that the Secretary talked about in Hellfire; but if we get them, we will pass them on.

[The information follows:]

COPPERHEAD

Copperhead performed well during Desert Shield/Storm. ARCENT soldiers hit 71 percent of all targets lased. Targets attacked included observation points and vehicles in convoys. Complete data is still being collected by ARCENT.

The Army's next generation of smart munitions—sense and destroy armor [SADARM] and smart antiarmor programs—will, even more than Copperhead, enhance our capability to defeat threat artillery and armor at ranges of 20 to 250 KM. Smart munitions will be true fire and forget rounds—they will not have to be lased to a target and firing will require minimal soldier train up time.

ARMOR COMBAT

Senator **RUDMAN**. And finally on the armor. Was there much armor-to-armor combat, or was most of it a helicopter against enemy armor?

General **VUONO**. Of course, there was a variety of air combat, the Apache, and so forth; but, there were definitely tank battles. There were two cases where we heard back after we captured some Iraqi prisoners that one supposedly said that he was in his tank, saw nothing, and heard nothing until his tank blew up. Of course, that is the range effect.

Another one said that he knew that the Abrams tank was on the battlefield when the turrets on the adjacent tanks flew off.

Senator **RUDMAN**. Well, we would like, of course, as much information eventually on the performance of some of those systems which we supported. And thank you, Mr. Chairman.

Senator **INOUYE**. Senator DeConcini.

Senator **DECONCINI**. Mr. Chairman, thank you. Secretary Stone and General Vuono, welcome. And let me add my congratulations, particularly to General Vuono. I thank Secretary Stone as well. Your opening remarks were very, very good historically.

Also, I appreciate your public recognition of and thanks to this committee for the support that we have given you because I think this committee has really responded well—over the last 10 years that I have been here—to the requests that you have made. We have asked questions, and gotten good answers, and we have given you what you indicated was necessary in light of this war. Unfortunately, there has been the hint of some partisan feelings as to different votes that have been cast here. I appreciate the public statement as to all of us on this committee, because you have the support of this committee. That I think is very evident.

1988 BASE REALIGNMENT AND CLOSURE LIST

Secretary Stone, in your statement, you speak of your desire to seek "greater efficiency in stationing forces" and of "closing uneconomic and inefficient installations." I share your interest in being a good steward of the taxpayer's resources. You and I have talked about this for some time at great length regarding the realignment of the Information Systems Command at Fort Huachuca. I continue to have concerns that in approving the entire 1988 base closure list, we may be wasting a great deal of taxpayers' moneys.

The Base Closure Commission had determined that this realignment would save the Government $21 million annually and pay back in 1 year. You, no doubt, recall the GAO determined and reported to Congress that the realignment of the ISC would save only $8.1 million and ultimately the payback would be 43 to 200 years. This in no way meets the 6-year payback requirement stipulated under the BRAC criteria. Nor does it result in any significant savings.

Last year, on March 29, before the subcommittee, you stated in response to my question, and I will quote, "From a business viewpoint, as a manager in the private sector, no investment would ever get by a board of directors if it were going to be a 43-year payback." You went on to comment that, "We are looking at a figure of something like $480 million to make that move. What worries me, ultimately as the Army's resource manager and the steward of Army resources—is that, despite the fact that Congress has appropriated money to take care of those out-of-pocket costs, there is a finite amount of money in the pot."

Given that Congress appropriated $500 million last year to accomplish all of the base closing work for all of the bases proposed to be closed or realigned, do you still believe the cost of nearly $0.5 billion does not make sense from the viewpoint of any good business manager?

Secretary STONE. Senator, if I may, I would like to take the liberty of turning your remark around a little bit. I think that my objective in the Army is to try to use those resources as wisely as I can. It is very difficult to determine whether there are going to be enough resources, and let me give you an example. The move that has been established in the law requiring the Army to move some activities from Fort Huachuca in Arizona to Fort Devens in Massachusetts and vice versa, is going to entail the scale of construction that you have just been talking about.

Since our hearing a year ago, I have been up to Devens, and I have spent a lot of time up there looking at the complexity of that change. There are two brand new buildings up at Devens. They have been built within the last 3 years, they have never been occupied, and they will never be occupied by the forces they were originally intended for. We now have to go into those buildings and modify them to receive the units that are supposed to be coming up from Hauchuca. Predicting that sort of cost is very difficult.

I am told by engineers and contractors that modifying a building is the most difficult type of construction to estimate accurately. So I do not know what it is going to cost. It seems to me to be unfortunate to take two beautiful buildings that were built on that installation, and go into them and knock all the walls down inside them to modify them to accommodate some functional workload which the GAO says is never going to pay back according to the original criteria.

Now, I could go on and talk some more about it. However, I think that what I need to say at this juncture is that we have a new piece of legislation that has materialized since last year. That piece of legislation is what we are now referring to as base realignment and closure [BRAC] 1991. The BRAC 1991 process—the base realignment and closure process for 1991—is going to kick in here very quickly. On April 15, we have to submit to the Base Realignment and Closure Commission—the new commission that has been established to succeed the Ribicoff-Edwards Commission that originally did the BRAC work 3 years ago—the Department of Defense's new recommendations. The Department of the Army has to include in those new recommendations any modifications of the original legislation that we believe are appropriate and that we believe will still enable us to comply with the original legislation.

So, I can assure you that I am still looking as closely as I can at that problem and trying to see what alternatives are available that make greater economic sense.

Senator **DECONCINI**. Thank you for that, Mr. Secretary. And as Senator Nunn and I discussed on the floor in a colloquy where Senator Nunn said obviously if significant errors were made by the Commission, one would expect the Secretary of Defense to reconsider whether these realignments should proceed. That is what you are talking about, is it not?

Secretary **STONE**. Yes, sir.

Senator **DECONCINI**. In your recommendations you are at least massaging and going through the process of making some determinations as to how far you should proceed on any of these that may not make sense. Is that a fair summary, without putting words in your mouth?

Secretary **STONE**. I think I can accept that as a fair statement; yes, sir. Thank you.

APACHE HELICOPTER

Senator **DECONCINI**. Thank you. And I want to thank you Mr. Secretary for the time you have spent on this particular issue because it troubles me not only because it is parochial, but it seems to me that there are other options for Fort Devens. It is possible that we have discussed maybe sending units other than the ISC there, but to spend this money is just awful foolish in my opinion.

General, you mentioned, and so did the Secretary, the Apache helicopter, its superb performance and the GAO study team that went out to Saudi Arabia and kind of contradicted the previous report the GAO made last fall to House Member Dingell. The Apache's performance was outstanding from everything that we hear. I have seen the videotape that the Secretary spoke about. Do you foresee a need—and I understand that several of them were shot down—do you foresee a need for the Army to buy additional Apaches or at least maintain the inventory at 807, a level that will not be met as a result of the gulf war?

General VUONO. I would like, obviously, to maintain the 807 level, because that equips the 40 battalions we said we need, even with the force structure reduction. I do not yet have in all the data on those that were total or partial losses. So I do not know what that number is. It is not going to be a very high number.

Senator DECONCINI. It is not going to be too high?

General VUONO. Not high at all.

IMPACT OF DESERT STORM ON TERMINATION OF WEAPONS SYSTEMS

Senator DECONCINI. Do you think that Desert Storm will have any impact on the earlier decision to terminate the production of some key weapons such as the AHIP and the Apache, or are you considering that?

General VUONO. Everything is always subject to review. But at this juncture, I do not see us reversing that. Because we have, in the case of the Apache, the buy to get us the 807, and I think that is what we need to equip the force.

Secretary STONE. If I could add one comment, Senator, because it gives me a chance to go back to your Chairman's remarks, and my own remarks. Both of us focused on the Army's modernization program, and I gave some statistics where certainly our procurement accounts have been going down very seriously and very substantially.

What we are doing in the Army at this point is that we have a transition program going on of considerable dimensions. We are reaching our Army acquisition objective in a number of our major programs. We are reaching it in the case of the Abrams tank. We are reaching it in the case of the Bradley fighting vehicle. The original acquisition programs, as modified by the force structure that we are looking at down the road, are being achieved. That is where the 807 figure you mentioned a minute ago came from.

At the same time, we have a considerable range of other programs where our acquisition objectives have not been met yet. The Black Hawk helicopter is one of them. We also are planning, as you know, Senator, to upgrade the Apache to the Longbow configuration, which is going to require 227 helicopters to be modified. That work will continue on out into the middle of this decade at the Mesa, AZ, Apache plant.

I could go on and talk about trucks and service life improvement programs on trucks and on communications equipment where our modernization program is still continuing and evolving, where we have not met the acquisition objectives.

When we talk about replenishing our inventory, I am very anxious to do that. I would not mind if we have lost 10 Apaches—and I do not know what the figure is, either—but, in principal, I would like to see another year of procurement to add to the inventory so that we can maintain the 807 objective, because those battalions that require the 807 are still in existence and we have no plans to take them out.

The problem that we have to face in the Army is to be able to do that without losing the funding that we require for our other programs as well. So we have a balancing, Senator.

Senator DECONCINI. I see that, Mr. Secretary. And you make a good argument. On the other hand, I am sure you know that the

Apache production line is still going. It would seem to me that if you were going to replace lost Apaches, the time to make that decision would be late 1991 or 1992 before they shut down the production line, rather than to come back in 1993 and 1994 and say, "Well, let us get 20 new ones to bring us up to our required total." That is my only point. I realize you will have to reprogram short term if you were going to do that.

Secretary STONE. I understand.

Senator DECONCINI. And Mr. Chairman, I will submit the balance of my questions on the light helicopter and the Joint Stars program. And I would ask that a letter to Secretary Cheney that I wrote November 13, 1990, regarding military construction and the base closure be inserted in the record. And I want to thank both the General and the Secretary for answering my questions today and those that I submit.

Senator INOUYE. Without objection, so ordered.

[The information follows:]

NOVEMBER 13, 1990.

Hon. RICHARD CHENEY,
Secretary of Defense,
The Pentagon, Washington, DC.

DEAR MR. SECRETARY: As you are aware, amendments were attached to the FY 1991 Defense Authorization and Military Construction Appropriations bills which prohibit any delays in implementation of Public Law 100–526, the Base Realignment and Closure Commission recommendations. These amendments appear, in effect, to negate the construction stays at Fort Devens which have temporarily delayed the realignment of the Information Systems Command from Fort Huachuca to Fort Devens.

During testimony before the Senate Defense Appropriations Subcommittee, Army Secretary Stone stated that the ISC realignment did not make sound business sense and would result in a cost to the taxpayer of over $500 million. I wrote to you at that time and suggested that you take action to rectify this situation consistent with the authority you have to take corrective action. This authority was discussed in a colloquy last year between Senators Inouye, Nunn, Simon, and myself during debate on the FY 1990 Defense Appropriations bill.

It appears that correction of this problem by delaying construction projects will not rectify the situation. One route you might consider is directly addressing the problem and requesting a change in Public Law 100–526 as it regards the ISC. Another alternative is to include a clarification of the ISC realignment in the next round of base closings which you are expected to send to the Congress early next year. You could also address the needs of Fort Devens in that package.

I urge you to directly address this issue so that the taxpayers' scarce resources are not wasted on an action which is bad for the Army, bad for Arizona, and bad for the country..

Sincerely,

DENNIS DECONCINI,
U.S. Senator.

DECEMBER 13, 1990.

Hon. DENNIS DECONCINI,
U.S. Senate,
Washington, DC.

DEAR SENATOR DECONCINI: Thank you for your letter of November 13, 1990, to Secretary Cheney regarding construction delays at Fort Devens and the realignment of the Information Systems Command [ISC] from Fort Huachuca.

The National Defense Authorization Act for Fiscal Year 1991 (Public Law 101–510) requires all installations to be considered for closure or realignment on an equal footing based upon approved criteria and a force structure plan that will be submitted to Congress with the Fiscal Year 1992 budget justification. Therefore, Fort Devens and Fort Huachuca will be reviewed again for closure or realignment along with all other installations, as required by this legislation.

A temporary prohibition has been placed on all military construction until April 16, 1991. This prohibition includes the ISC projects at Fort Devens. This action allows the Department to exercise careful stewardship of our military construction resources by avoiding the use of scarce taxpayer dollars for construction at installations that may be proposed for closure or realignment in April under Public Law 101–510.

Thank you for your interest in this matter and I trust I can rely upon your continued support.

Sincerely,

DAVID J. BERTEAU,
Principal Deputy.

INTELLIGENCE CAPABILITY

Senator BUMPERS. General, were you by and large—just as a generalized statement—were you by and large pleased with the intelligence you had before you went into combat?

General VUONO. Yes. Let me preface that by saying, you always want more intelligence. At every echelon you want more. But I think, by and large, I was satisfied in general with the intelligence capability.

Senator BUMPERS. I heard Admiral Crowe say one time that if you read military history, the greatest victories have been by commanders who ignore their intelligence. I know sometimes that is a temptation. But I just wondered. For example, we have been told all along that there were 500,000 Iraqi troops in Kuwait and southern Iraq. But I also read where General Schwarzkopf has said that desertions were as high as 30 percent, and then others said they might have been as high as 60 percent. Do you have any intelligence on that? What was the desertion rate?

General VUONO. No—percentagewise it would be hard for me to quantify—but we knew that there were desertions taking place and we understood that would weaken the fabric of their fighting force. We never knew to what degree, but we knew that the desertions had weakened them.

WEAPONS SYSTEMS PERFORMANCE ANALYSIS

Senator BUMPERS. Let me just also follow up on a point that Senator Rudman made and I know that you are probably preparing to do this, and it is very important to this subcommittee before we get the markup on these bills: a fairly detailed analysis of which systems work the best, which weapons work the best, and so on. Because with the still tight budget constraints we are under, it is very important for us to have that information.

Aside from that——

General VUONO. May I just comment on that, Senator?

Senator BUMPERS. Sure.

General VUONO. Obviously in any type operation like this, there will be no end of folks who will want to do lessons learned on the operation, not just with the weapons systems. We, in the military and the Army specifically, have a system to bring in the lessons learned, evaluate them, and we do that for weapons systems, our training, our doctrine, and so forth. We are in the process of doing that. When we get those results, I think they will be important, as you say, as we look to the future.

Senator BUMPERS. I appreciate that, General. Of course, every war has its own uniqueness. This was a desert war. Our next one may be a jungle war. You just cannot tell. But we need to learn all we can from this one and take advantage of such intelligence as we can get.

Talking about which weapons worked and which ones did not—if any, in fact, did not, but of course I have a couple parochial questions. No. 1, on the MLRS, I was just wondering, do you have any estimate on how well it worked and how many of them we fired?

General VUONO. First of all, it worked absolutely superbly. The troops in country—when I talk about the troops, I am not just talking about the soldiers—the leaders reported back that it worked in first-class fashion and that it was very important for the operation. We are now gathering the expenditure rate, and we hope to have that in the very near future. I do not have any numbers, but I can tell you we fired a significant amount of MLRS in the operation because we used the artillery as we advanced with the mechanized forces, and before we closed, we fired a heavy concentration of air and artillery rounds on the enemy.

Secretary STONE. Senator Bumpers, could I impose on your time and perhaps broaden the answer to the questions that you are raising here and say a word on behalf of some very unglamorous systems that performed extremely well for the United States in Southwest Asia. I will just mention two of them, because I can use them to illustrate a broader point.

The HMMWV, the replacement for the jeep, worked excellently. Its serviceability was very good. Its utility in terms of being able to perform a variety of missions was very good.

The HEMTT 10-ton truck made in Wisconsin proved to be an extremely serviceable vehicle. We wanted all of them that we could get over there. And again, their performance was everything that we thought it would be.

Those are very unglamorous programs. We are now in the process of letting some new contracts for replacement of the 2.5-ton and 5-ton trucks, as opposed to the 10-ton HEMTT. Our inventory of those 2.5-ton trucks is very old and replacement costs—excuse me—the repair costs annually are very high. We need to get on with that program. We are buying more transporters. We are buying some more ammunition-hauling equipment, which is going to reduce our operating costs substantially.

These are unglamorous programs. They are not the Apaches of the world, or the M–1 tanks of the world, but they are very important for the backbone logistics effort of the Army. Again, that illustrates the difficulty we have in the Army in our procurement programs. The difficulty of making sure that, as much as we would like to replenish some of the things we have been talking about this morning, we at least retain the funding capability to do those more prosaic and less glamorous things as well.

Senator BUMPERS. Well, thank you, Mr. Secretary, and I think that is a very sagacious observation. I think people very often have a tendency to overlook the unglamorous systems and focus too much on the glamorous. I know when I first came to the Senate back in the late 1970's, I was on the Armed Services Committee. The M–1 tank was very controversial back then. And I went over to the proving grounds and drove one. And became that that tank had a great future. And obviously this war proved that it had a great future.

And I felt that way about a number of weapons. Occasionally, of course, I take exception to some weapon. And sometimes I am right, and sometimes I am wrong as we all are. But when you look at this particular war, and you look—even the old B–52's performed like a draft horse in this war. And I remember going out to look at the B–1 in the late 1970's at Edwards Air Force Base and a lieutenant colonel took me over, and he said, Senator, let me show you a real airplane. And he took me through an F–B111. He said, if I had to penetrate the Soviet Union, I would take this weapon two to one over this B–1 over here. And it did extremely well in the mission. And the F–16's, and the F–18's, and the AV–8B's, all those weapons apparently worked extremely well in this.

But to get back on track, I have heard figures that with the Hydra 70, we fired close to 400,000 of those. And let me just tell you my point and you can catalog it in the recesses of your mind and tell you what my problem is in Arkansas. That weapon is made by BEI in my State. And while I know the Army wants to continue buying it, they are not asking for it this year because there was, in fact, a backlog because an Army arsenal could not get some of the rocket motors to them, and a subcontractor had problems building the ignitors to them last year.

Now, General Pitman testified last year that the Marine Corps was short on these. And if they were short then, I expect—now I understand why they make about 13,000 a month down there, we use about 90,000 a year in training.

And here is my whole point. If we do not provide funds in the 1992 budget for the Hydra 70 because of this backlog and the suggestion that BEI will have plenty to keep them busy, they say that this weapon—that they will be caught up on their backlog by the end of this year—this calendar year, which means that if there is no money in the 1992 budget, there will be a shutdown of the plant between the time new money comes in and they finish the backlog. Have I made myself clear?

General VUONO. Yes.

Senator BUMPERS. Fine. I just want to make that point to you so that when we—and maybe I will draft you a letter and you can respond to it before we go to markup on this.

And incidentally, we have got $37 million already spent on total fiscal year 1992 advanced MLRS production for the 24,000 missiles we thought you were going to need, now it has been zeroed. So I do not know whether we are going to lose that $37 million advance material or not.

General VUONO. It will be higher than zero.

Senator BUMPERS. Pardon?

General VUONO. It will be more. We have expended some, but we did not expend near 24,000.

Senator BUMPERS. But it will not be zero.

General VUONO. It will not be zero.

TOTAL ARMY ANALYSIS 1999

Senator BUMPERS. Just two final questions. No; a very important question. On the total Army analysis 1999, General, both you and General Powell, before this subcommittee yesterday, testified that the Guard and Reserve performed magnificently in Desert Shield and Desert Storm. I think every Senator, and certainly every Senator that has ever been a Governor, has a deep and abiding respect for the Guard. And I am very pleased to hear all that.

And obviously one of the things that touched America like no war since World War II has touched us, I guess, is because these hometowns saw their Guard units and their reservists going off to war. It really touched them deeply.

But I am a great proponent of the National Guard and I am a little concerned about the TAA 1999 proposal, because there is a substantial reduction. And when we get back to the budget constraints, you can train a guardsman, for example, for 33 percent of what you can a regular soldier. So I think this subcommittee is going to want to look at that very carefully before we do that. It is just an observation.

Do either of you care to comment?

General VUONO. I would like to comment. First of all, the Reserve components, both the National Guard and Army Reserve, performed superbly and the American people ought to be very, very proud of it.

We have to reduce the total force, Senator, both the Active and Reserve components. When you reduce the Active component, there are elements of the Reserve components that support the Active component that you will need to reduce. As we have less Active force structure, you can take some of that Reserve component strength down.

So, what I focus on is not the numbers, I focus on the readiness and the quality. If we have to get smaller, which is what the Congress in the budget summit has asked us to do in terms of resources, then in my view, reducing the size of the total force and protecting the readiness and quality of that force so that we can respond to a Desert Storm, or a Just Cause, or whatever is the way to go.

It is painful to reduce. Nobody wants to reduce. Nobody wants to close bases. Nobody wants to stand down battalions and brigades in either the Active or the Reserves. We have tried to do it as prudently as we can, keeping in mind the readiness of the force.

Senator BUMPERS. Well, I will tell you where you can find some money. You can reduce our forces in Korea. I still must say I do not understand why a nation that has 10 times the GNP of its adversary needs as much help as we give them. I think we ought to have some troops there, and I think we ought to have our Navy and our Air Force there, and our intelligence community there. But you can still save $1 billion a year; you would not lose anything in deterrence.

And I do not understand why South Korea, with a $220 billion GNP, needs so much help facing off against Kim Il Sung, who apparently has got some internal problems of his own now, with a GNP of $20 billion. I just do not understand why we have to maintain the presence we have there. I have no objection to a presence, but I think we could save $1 billion a year there.

And incidentally, I did not think they were terribly forthcoming in their contribution to this conflict either. But I want to be able to sit here in this committee and say I was wrong when I said I did not think we would collect the $54 billion. This morning the Japanese Diet approved their $9 billion contribution, and I hope that 3 months from now I can say I was dead wrong, we got every dime of it.

SEALIFT AND THEATER MISSILE DEFENSE

Now, finally, two quick questions. Was our sealift sufficient? And No. 2, would you like to see the Army given the lead role in theater missile defense systems rather than SDI?

General VUONO. On the first one, we would have liked to have had more sealift early on in the operation. We were able to pull together the sealift through a combination of means. One of the areas that will come out of this operation is a need—and we are currently doing it—to review completely our deployability requirements of which sealift is a part. In my view, we will need some additional sealift to be able to project what will be a more CONUS-based Army than we have had in the past.

Secretary STONE. I have a strong viewpoint on your second question, Senator Bumpers. The Army's history in the area of missiles and ballistic missiles and missile defense goes back, as you know, a very long way. It goes back to the days of Werner von Braun and Alabama and the Red Stone Arsenal development there, and we have had some tremendous successes over the years.

We have some tremendous successes that we are achieving today. They are not very well known. We had a very successful interception by a new missile system called the exoatmospheric reentry vehicle interceptor subsystem [ERIS] just a month ago, which intercepted a missile fired from Vandenberg in California down range towards Kwajalein. We intercepted it at a very substantial distance from Kwajalein. I am not sure whether that distance has been released yet, or whether it is still classified.

So I think from a functional viewpoint, the Army is very well equipped to handle that mission. We have a very strong MACOM, a major command in the Army, called the Strategic Defense Command, where a lot of this antiballistic missile [ABM] work is being done today. It is a decision for Secretary Cheney to make, but if he chooses to assign that mission to the Army, we would be very happy to execute it.

Senator BUMPERS. I think right now that I would like that. I do not know. I could be persuaded I guess either way. But obviously theater missile defense is now—or the thing of the future.

Incidentally, can you tell me how many Scuds were actually totally destroyed in the air?

General VUONO. No; I do not have that. I do not have that data right now. I just do not have the numbers. I will see if we can provide that for you.

[The information follows:]

SCUDS DESTROYED BY PATRIOTS

Analysis of Patriot's effectiveness against the Scuds is ongoing. The difficulty is in determining the precise results of the intercept. The Patriot missile is designed to explode in close proximity to the Scud and cause warhead fragments to strike the Scud and either destroy the Scud warhead or cause it not to explode upon ground impact. Total destruction of the Scud missile is not required.

Our current data shows that of [deleted]. One of those that was not engaged caused the Dhahran tragedy. The Army is doing a detailed investigation to determine the precise reason why this one Scud was not engaged. An official report will be released upon conclusion of the investigation.

Senator **BUMPERS**. Well, there again, we will provide you with additional Patriots certainly to replenish the arsenal. But in this theater missile defense thing, it would be good if we could improve on that. Because we had a lot of deflections as you know. And of course, the damage was still done after they had been hit by Patriots.

Secretary **STONE**. I will not repeat my comments, Senator. I am not sure whether you were here when I talked about the problem before, but your comment I think is accurate. We have to be very careful that we do the right range of research in this area.

Senator **BUMPERS**. Thank you very much, gentlemen.

Senator **INOUYE**. Senator Johnston.

ACTIVE/RESERVE COMPONENTS FORCE MIX

Senator **JOHNSTON**. Thank you, Mr. Chairman.

Welcome, Secretary Stone and General Vuono. Senator Bumpers just asked about the Guard and Reserve. You are reinforced in your view that the Guard and Reserve, the mix that we have presently, is the way to go?

General **VUONO**. Well, the mix that we have presently will be adjusted because the numbers will be lower.

Senator **JOHNSTON**. You will go down to 12 Active. I understand that.

General **VUONO**. Twelve Active and six Reserve and two cadre. Obviously, we would like to have more. We have talked about that all morning. But I think given the level we are going to, that mix is one that I can work with.

REDUCTION OF FORCES IN EUROPE

Senator **JOHNSTON**. Now, I understand that General Powell testified today or yesterday that we would reduce troops in Europe to 100,000 to 150,000. Now, will the Desert Storm troops that came from Europe, will they return to Europe with their equipment?

General **VUONO**. The plan is for the corps that we brought out of Europe to the gulf to go back to Europe from the gulf; yes, sir.

Now, that is important for readiness reasons and then for soldier care reasons. We are in the process, as you know, of reducing our forces in Europe. Some of the units that are in the gulf are part of the forces that will be reduced. Others in the gulf will be part of the residual force. It is important that we get those forces back to Europe so that those that are going to be reduced can go through the normal procedure of standing down their units, and that we do it in a manner that keeps the readiness of the force.

Second, those soldiers left their families in Europe. We made a great effort to maintain a quality of life over there so that the families would be taken care of while the soldiers were in the gulf. I think we have done that fairly well, and they will go back to Europe and pick up their families—those that are leaving.

Senator JOHNSTON. All of those, even those that are leaving?

General VUONO. Yes.

Senator JOHNSTON. Now, eventually, when troops are reduced, will their equipment remain in Europe or will it be brought home?

General VUONO. Some will remain in Europe as part of our prepositioning of materiel configured to unit sets [POMCUS] and the other equipment will be used to upgrade the remainder of the force back in the States.

AMMUNITION SUPPLY

Senator JOHNSTON. How is our ammunition supply?

Secretary STONE. I think the answer, Senator Johnston, to that is that we have not yet finished the analysis of what we actually shot up during the engagement in the last couple of months. Until we have that data available, I cannot really give you as good of an answer as I would like.

We have talked about some of the munitions in the hearing this morning. We have talked about Hydra rockets; we have talked about MLRS; and we have talked about Hellfire without talking about the inventory implications. We will need to look very carefully at what inventory replenishment we need, and we will be doing that.

Senator JOHNSTON. Any idea about your explosive, your RDX particularly?

Secretary STONE. I cannot answer that. I should have anticipated it. I do not think the Army position has changed, Senator, in that we believe we have the capability of producing what we require with our existing facilities.

CLOSE AIR SUPPORT

Senator JOHNSTON. I know the Air Force thinks the A–10 worked very well. Does the Army have a view on that?

General VUONO. Well, I think the Air Force—my admiration for the Air Force has always been high, and certainly through all this operation I think the whole air phase of the air-land-sea campaign plan went off very well—A–10 performed superbly.

Senator JOHNSTON. Well, as you know, the Air Force was considering for a while not to go with the—to phase out the A–10. From the Army's standpoint, do I take it that you think that would be a bad idea?

General VUONO. I am not going to—let me just address it this way, because I have been consistent over the years on the close air support mission. The Air Force has a close air support mission. What we do is lay down the requirements that the Air Force should meet in carrying out that close air support mission. Whatever air frame accomplishes that job, I support. We have been consistent in the Army in that view.

It would be like somebody telling me what kind of tank we ought to have to work on the battlefield. I am satisfied that the Air Force has met, and in the future will meet, the requirements we have laid down for close air support. What air frame they elect to do that with, as long as it meets my requirements, I am satisfied with.

Senator JOHNSTON. Well, did you have enough coordination with the Air Force in the actual battle to be able to judge the A–10 as opposed to the competing airplanes?

General VUONO. Well, we had great coordination. The air-ground interface worked superbly in this operation. I do not think I know enough to tell you which one of the birds worked the best. I think the combination of all of them used in close air support did the job for us.

Senator JOHNSTON. I was particularly interested in that Gatling gun—the 30 mm Gatling gun.

General VUONO. I do not have anything specific on that.

NUMBER OF IRAQI CASUALTIES

Senator JOHNSTON. All right.

Do you have a figure now on Iraqi casualties?

General VUONO. No; we do not. I do not have a number for you on Iraqi casualties.

SEALIFT, AIRLIFT, AND PREPOSITIONING

Senator JOHNSTON. Will the Army and the DOD be rethinking its sealift capabilities? Senator Bumpers asked about that.

General VUONO. Yes; we are. As you know, with the strategy where we will have less forces forward-deployed and more of a CONUS-based Army, deployability is one of the characteristics of the Army of the future, and that is a combination of airlift, sealift, and prepositioning.

One of the areas that is undergoing close study is the sealift requirements that we will need, and the Army is a very important player. Again, we are doing the same thing on the sealift requirements that we do on the airlift: "Here are our requirements. Here is the amount of the force that we want to move in *x* number of days. What is the best sealift to meet that requirement?"

So that is ongoing right now.

AMPHIBIOUS LANDING CAPABILITY

Senator JOHNSTON. Now, obviously you did not do the amphibious landing. Did you learn anything about our capability on amphibious landing, particularly in the LCAC, as you thought about what you would have to do if you did make the amphibious landing?

General VUONO. Well, I think that is a more appropriate question for the Commandant of the Marine Corps to answer when he comes over. All I would say is that the capability of amphibious operations was a plus. Even though we did not execute any amphibious landings, the threat that was portrayed to the Iraqis was of great assistance to us because it tied down their forces.

ISRAELI ARROW SYSTEM

Senator **JOHNSTON**. One final question. Senator Bumpers asked you about the missile defense. The Arrow system that the Israelis is developing, does that seem to answer all the requirements for theater defense?

Secretary **STONE**. I do not know whether it answers all the requirements, Senator. I think there is a test firing this week, it may even be today, and we are watching that very closely. We have people in Israel looking at that test, and it is one of the systems that I have mentioned twice that we ought to make sure that we continue to evaluate before we make a major new commitment to the ABM requirement.

Senator **JOHNSTON**. Thank you very much, and thank you, Mr. Chairman.

ADDITIONAL PATRIOT MISSILES

General **VUONO**. Could I correct the record here? One of my backbenchers gave me a note, and I would just like to correct the record. It is on the Patriot. Apparently Senator Stevens was correct that there is 500 missiles in that mark—158 missiles in the Desert Storm supplemental, and 342 missiles in the dire emergency cooperation fund.

Senator **INOUYE**. We will stand in recess. We have a vote pending at this time and should be back in about 10 minutes.

[A brief recess was taken.]

Senator **INOUYE**. I have a brief statement from Senator D'Amato that I would like to put in the record at this point.

[The statement follows:]

STATEMENT OF SENATOR D'AMATO

The mix of Active Army divisions contemplated in this year's request is a source of concern.

The dwindling of the Army to 14 Active divisions, 6 of which are light, by the end of fiscal year 1993 strikes me as an overemphasis on contingency, as opposed to heavy, forces.

In achieving by 1995 an Army of a mere 12 Active divisions, I hope that the heart of the Army—armor and mechanized forces—is not foreseen as an excuse for inadequate lift or in pursuit of a role in future contingency operations.

Senator **INOUYE**. Senator Specter.

Senator **SPECTER**. Thank you, Mr. Chairman. Secretary Stone, I thank you publicly as I have thanked you privately for attending the memorial service last Saturday in Greensburg, PA. It was obviously devastating to that small community to have so many fatalities and so many wounded in the gulf war, but the people of the community very much appreciated your presence.

Secretary **STONE**. Thank you, Senator.

LAST YEAR'S FORCE REDUCTION AGREEMENT

Senator **SPECTER**. Mr. Secretary, and General Vuono, I join my colleagues in welcoming you here, and add my voice to those who have praised you for the outstanding work of the U.S. military, and in large part the U.S. Army, for the extraordinary success in the gulf war. And we now turn to some very difficult problems as to how we take the next step.

We heard from the Chairman of the Joint Chiefs yesterday about the projection and the intent of the Department of Defense to stay within the existing projections for the military on the reduction in costs over the next 5 years. And a threshold question on my mind, and I think on the minds of many others, is given the shifts in the Soviet Union and the change in their course or the apparent change in their course over the past year as President Gorbachev has shifted away from perestroika and glasnost and a shift to more of the military's influence and given our experiences in the gulf war, are we on a sound course? Is it adequate for our military needs to stay within the budget agreement of last year?

General VUONO. Well, we have tried to build a force to stay within those limits. We have said that, given the resource levels the military services have—in my case the Army—we determined that we should reduce the force in order to protect readiness, quality, training, and some degree of modernization so the forces stay trained and ready.

The force levels that are in our projections are very, very small and are the bare minimums that we could go to given the environment that we foresee in the future. The dollars are what is driving the reductions. It seems to me that, based on what we have learned in the gulf, and particularly as we watch the Soviet Union and see what changes are being made there, we should consider that very closely. If there are changes, then in our minds, we would be responsible to come back to this committee and say that the force projections may be too low.

The budget we have over here now, that we are defending, I think is a budget that, given the dollars and the environment, has been put together as best we can. I do not have a crystal ball that is not cloudy. But I would tell you that the crystal ball needs continually looking into, and if those force levels prove to be in error given the environment that we see, then we would need to come back and ask for additional forces.

Senator SPECTER. Well, I thank you for that answer. You are on a team. And the team is guided by a lot of factors, including political factors and deficit considerations. And we understand the nature of the operation that DOD has to work through from OMB through the White House and through the President. But we always stress the need for professional independence to some significant degree if it is necessary to speak out, either privately or publicly.

I know this committee is prepared to listen to you at any time if those needs shift, because the defense needs are not really second to none. They are No. 1.

General VUONO. Senator, I would be the first to come tell you at any time I believed that the Nation is in jeopardy because of the budget or programming of the U.S. Army.

Senator SPECTER. Well, I thank you for that, General. And it does not do any harm to extend the invitation nonetheless.

Secretary STONE. No; that is right.

CHANGES IN THE SOVIET UNION

Senator SPECTER. We have a series of financial arrangements which seek to extend some help to the Soviet Union directly or indirectly. Yesterday afternoon, in another subcommittee of this Appropriations Committee we heard from the Secretary of the Treasury, Nicholas Brady, about one of these financing plans. That was after hearing earlier in the day about the strategic modernization by the Soviet Union. It is on many minds why we assist the Soviets with butter at a time when they are continuing to modernize their guns and whether our policy might be better not to assist them with their domestic needs, their butter needs, and notwithstanding the delicate balance that we have with the relations between President Bush and President Gorbachev and the advantage of being able to call up and get support for our gulf plans even after the trial Soviet peace balloon falls to the earth with a thud.

But I would be interested in your comments about the current course which we are undertaking on such economic assistance when they continue to modernize their strategic missile force.

Secretary STONE. I have talked several times in my remarks this morning about emerging realities, which is the phrase that the Chairman and the Secretary of Defense used. And that emerging reality, as I paraphrased it, is the same point that you make—the changes that are taking place in the Soviet Union.

From our limited Army perspective, we do not see very much of a change taking place. I noticed some budget figures the other day which talked about an increase in the Russian defense budget from 70 billion rubles to 100 billion rubles. Now their media claims that those figures represented a substantial restatement of the previous year's figures. There were inflationary adjustments. There were accounting changes that provided for a substantial amount of that change. I do not know the intricacies of those numbers, but I do not like the implication of it very much—a very substantial increase if, indeed, there is one.

We see them still continuing to produce tanks at a higher rate than ours. I saw an announcement the other day that a brand new, large phased-array radar is going to be constructed there. So we see a continuation in that country, aside from the hard line that perhaps has been manifested more in the last couple of months, of the modernization that I think we talked about in the committee hearing a year ago and that you have now alluded to.

AMMUNITION SHORTAGE

Senator SPECTER. Let me shift ground to the question about the adequacy of the current budget on ammunition. In articulating this question, I do so both in terms of national security interests and some Pennsylvania interest where we have very substantial business operations in this line. When we talk about your overall budget and the constraints, we understand what you have to do. Senators from individual States have a continuing responsibility to question cost items which affect their States. And we try to take appropriate account as to what you have to do in the Department of Defense and the Department of the Army to live within the budget. And we have a somewhat different obligation and perspective that we defer to the national interest.

There have been some substantial reports about the issue of the shortage of ammunition as I am told for the Bradley armored vehicle, the M–1A1 tank, and Apache and Cobra helicopters. The question arises, is $1.25 billion enough for all Army ammunition procurement for fiscal year 1992, and, perhaps this is a separate issue, for replacing the ammunition from Desert Storm. But I would appreciate your response to that issue.

Secretary STONE. I will, perhaps, address the financial side of it and leave it to the Chief to talk about the operational side of it.

I have two comments, I guess. One, you mentioned the figure of $1.25 billion as being the funding level for ammunition. That is down from a figure of close to $2 billion just a couple of years ago. So there has been a substantial reduction in the appropriations for the ammunition account. And again, that is another example of where these trend lines cannot continue to go down. We are going to have inadequate inventories. We are going to have inadequate training rounds to keep up the training edge which the Chief and I talk about all the time.

I think the second part of it is, we certainly do want to look very carefully and very quickly at the replenishment of the rounds that we used in theater—particularly two of them that you mentioned which are the 25 mm and 30 mm rounds.

Senator SPECTER. Replenishment is not within the $1.25 billion.

Secretary STONE. No; it is not within the $1.25 billion.

Senator SPECTER. So that is separate and apart?

Secretary STONE. Yes, sir.

Senator SPECTER. And you conclude that the $1.25 billion is adequate? I know you do, because you would not have put it in the budget if you did not. But how sure are you that that is sufficient given the experience and the issue of shortages in the gulf war?

Secretary STONE. I have tried to address that a couple of times this morning already. It is a very difficult one for me to answer. In principle, obviously, we would like to have slightly higher inventories of a number of items. I can say without qualification that we would like to have more rounds of the 25 millimeter, more rounds of the 30 millimeter, and also some of the M–1A1 rounds.

Again, it has to be put in the perspective, obviously, of the overall funds available to us when the $1.25 billion was prepared as a budget toward the end of last summer before the action started in Desert Storm. I might take a slightly different stance on that $1.25 billion today than I did a year ago.

General VUONO. Let me just add to that. Whatever replenishment is necessary, we would hope to fund out of the supplemental. We are getting the data back now in terms of the expenditures for all classes of ammunition and we hope to have that so that when the supplemental is acted upon, you will have the most up-to-date data that we have.

Now, let me address the other point you made, because I think it is important in the context of whether they were short of ammunition. Sometimes when one says that, people have a vision of the troops in the front forces not having ammunition. That is not so.

We had all the ammunition that the troops needed for the operation. It had to do with the days of supply that were built up behind that. In a couple of cases, as the Secretary mentioned, we were in the process of building that ammunition rate up when the conflict terminated. The troops had the ammunition they needed for the operation, and we will replenish it out of the supplemental.

LETTERKENNY ARMY DEPOT

Senator SPECTER. My time is almost up, so I will ask just one more question. There are many more, but our time is limited here.

And I turn now to an issue which is Pennsylvania oriented, but I think has some important implications for national defense on its own contribution. And that is the future of the Letterkenny Army Depot. There was an article which appeared in the Huntsville, AL, Times on a report that a new internal Army plan would bring 109,500 workers and family members to the Huntsville area by about 1997 under a program to consolidate the services' major weapons-buying organizations.

That same article referred to Security Assistance Command to be moved from Virginia and Pennsylvania to Huntsville in 1995 and would result in a reduction of forces for Letterkenny between 1,500 and 2,000 out of the total work force of 5,200 personnel.

Now I had said earlier that I understand the necessity for force reduction and for planning, but the question I have is what is the underlying evidentiary base? What studies have you undertaken which would demonstrate a cost saving which would warrant that kind of a reorganization considering the impact on Letterkenny and other Pennsylvania installations, because they coordinate with others, and also Virginia, where I might just say a half sentence on behalf of the ranking member of the Armed Services Committee who is the senior Senator from Virginia. It never hurts to refer there when they have a joint interest.

Secretary STONE. I would be glad to try to respond to that first, Senator. I think the key word that you used in your question was planning. You understand the need for that. You also understand the need, I am sure, as you implied in your remarks, that as we reduce the force structure of the Army, we have to reduce the overhead of the Army and the operating expenses that go with that reduction in force. The question is, how we do it.

The Army has initiated a number of studies. Some of these studies will relate directly to the base realignment and closure problems that we talked about earlier, and some of them are separate from that action.

All I can tell you is that at this particular moment—and I am now being very specific about Letterkenny—there is no decision that has come to the Chief's desk or to my desk relating to Letterkenny. Every installation in the Army is being looked at in terms of a whole range of criteria of social use, of military use, of functional use, and of environmental concerns. All of the Army installations are being looked at, including Letterkenny. But no decision has been made to move any part of Letterkenny to any other place.

Senator SPECTER. So I would not be inaccurate if I told my constituents in that area, "no plans to reduce Letterkenny"?

Secretary STONE. I would suggest a modification to that advice to your constituents. I think the way I would phrase it is that the Army is continuing to look, and has to look at all of its installations. At the present time, there are no studies that have been approved that would authorize the movement of anything out of

Letterkenny. That does not mean to say there will not be in the future. I cannot give that assurance.

Senator SPECTER. I know you cannot speak for the future, but I appreciate that reassurance for the present.

Thank you very much, Secretary Stone and General Vuono.

Thank you, Mr. Chairman.

COST OF POSTPONEMENT OF 5-YEAR PLAN BY 1 FISCAL YEAR

Senator INOUYE. I thank you, sir.

War is always tragic and always costly in lives and resources, but it is still the ultimate testing ground for tactics, technology, training, military assumptions and projections. I am far from being an expert in matters such as that, but like all Senators here I have reached certain conclusions.

One is that I believe we should revisit the 5-year end-strength decision that we made. And accordingly, I requested the Chief—the Chairman of the Joint Chiefs—to work out a money picture to show me what the additional costs would be if we postpone the 5-year end-strength program. Would the Chief of the Army be favorably inclined to support a postponement of the 5-year plan by 1 fiscal year?

General VUONO. I think it would assist us because of the Desert Storm operation and our ability to bring the force down in a logical manner. I know that you asked a question on the dollars associated with that, both personnel dollars and operating account dollars, and we are in the process of developing that for you. So I think, Senator, that we both need to see what that figure looks like and we will do that within the next several days.

READINESS OF NATIONAL GUARD ROUNDOUT BRIGADES

Senator INOUYE. This war also I believe gave us certain impressions on the role of Active Forces versus Reserve Forces. It may not be the happiest subject to be discussing, but I think as chairman of this committee it is incumbent on me to get your thoughts on this, because others can make decisions on assumptions. We have to make decisions on facts and reality.

During the Vietnam War I believe the National Guard brigade in Hawaii was the only one activated and sent into combat—our National Guard infantry brigade. In Desert Storm we activated three roundout brigades, National Guard brigades. But we found it necessary to require them to undergo extra training before they could join up with the Active Forces.

In saying this, I should also recognize, as all have, of the superb job that the combat support units—the Reserve units—did during the operation. But on the matter of roundout combat brigades, do you have any thoughts to share with us?

General VUONO. Yes, sir. First of all, Mr. Chairman, let me say that, like you—and as I have mentioned several times today—the performance of the Reserve components, both the Army Reserve and the National Guard, has been magnificent.

It is not just the logistical elements, but it is the engineers and the field artillery. They have all done superbly. The model that we worked—mobilization, time in a mobilization station, and then deployment either to the gulf or to backfill the Active units that went—worked out very well.

In the case of the combat units, it was apparent to me that because of the unique nature of ground warfare, and the importance of integrating all elements of combat power in a battalion or brigade, a period of training was necessary before we could deploy those forces to the gulf. I felt, Mr. Chairman, that it would have been irresponsible on my part to recommend that we deploy those brigades when I felt that they needed the additional training. It had nothing to do with motivation, quality, and so forth. It was just that time was needed to do that integration of infantry, armor, air defense, and all the things that you know very well. So that was my recommendation.

In order to do that, the Congress provided us the additional time, and so as a result of that, we mobilized those three brigades. We have conducted training programs for those brigades which are in various phases of completing right now.

I think that based on our assessment, and not just the assessment of myself, but the assessment of both the National Guard commanders and the Active component commanders who are working this, that this was time well spent.

So what have we learned out of all that? First of all, we learned and relearned that the roundout concept is a viable concept. As we look at our force generation model for the Army of the future, the roundout brigades will play an important role in the reinforcing elements with the Active units. I do not believe that we could expect a roundout brigade to be ready to deploy on C–Day, because they need the additional training time.

I believe we have also learned that there are some things that we can do prior to mobilization that will enhance the readiness posture of the roundout brigades, and we will implement those wherever possible. I want to leave the committee one, with the understanding that the Reserve components performed magnificently, and two, that the roundout concept is a viable concept.

There will have to be some adjustments made based on what we have learned, and based on the force generation model which we are developing for the future which is different than we have had in the past, because we have a different strategy and a different environment we are working in. The bottom line is, you cannot expect a combat brigade to be ready to conduct combat operations as rapidly as you can expect, let us say, a transportation unit or a quartermaster unit. You simply cannot do that, and it would have been irresponsible on my part, or on the part of the Army, or on the part of the Joint Chiefs to so recommend.

Senator INOUYE. How much additional training is required for these combat units?

General VUONO. Well, it varies. Right now they have been activated for a little over 3 months. I think rather than to try and dwell on the specific number of days, that if you looked at the force generation model, you would say that for the first 30 days or so you would have to have primarily an Active component piece. Beyond that, at some mark beyond the 30 days—and I cannot tell you what that is because each situation would be different—then you would cut them in.

So I would say probably you would need somewhere maybe around a couple of months, maybe somewhat less. It depends, of course, on how much we can do in premobilization—prior to mobilization. I think there are some changes we can make that would enable us to have the brigades ready for deployment sooner than they might be ready under the present model.

SEALIFT, AIRLIFT, AND PREPOSITIONING

Senator INOUYE. In the aftermath of this war, many articles will be written. History will be written as to who should get all the credit. I suppose there is enough credit to spread around to a hundred different elements involved. One, obviously, is Central Command.

It is ironic that about a year ago DOD was prepared to wipe out Central Command. Under Central Command we had the prepositioned ships. Can you tell us the role it played as far as the Army was concerned?

General VUONO. Yes, sir. What we had was some prepositioned stocks of ammunition and other classes of supplies. This proved to be very important to us as we flowed the force in country, because it gave us some classes of supplies that were readily available to us in the early stages of the operation.

Senator INOUYE. Would you suggest that we add to that, to the fleet?

General VUONO. As I said earlier, we are looking at that as part of the entire deployability requirements for the Army—airlift, sealift, and prepositioning. How much of the stocks you want to preposition and whether you want to consider putting some of the model that we used in Europe, the POMCUS equipment, somewhere in that region, are all being reviewed right now, and there are obviously advantages and disadvantages in all facets of that.

What we are trying to do is take the CONUS-based Army and make it more deployable and more versatile so that it can operate in multitheaters and be deployed in tailored packages rapidly, and all of those—airlift, sealift, and prepositioning—are part of that.

DESTRUCTION OF CHEMICAL WEAPONS

Senator INOUYE. Now I would like to ask smaller questions. We have come across chemical weapons in this operation. How are we going to destroy them? I ask this because in the United States we have 11 locations where we store chemical weapons for ultimate destruction. There is one in the Pacific near Hawaii. How and where are we going to destroy these Iraqi weapons?

General VUONO. Mr. Chairman, first I do not know the size or the number of chemical weapons over there. Second, I am not prepared this morning to give you the specifics of where we are going to destroy them. I think that plan has been worked, but I am not prepared this morning to go into that. I can provide it for you.

Senator INOUYE. I would appreciate that.

[The information follows:]

DESTRUCTION OF CHEMICAL WEAPONS

[Deleted.]

DEPLOYMENT OF ELEMENTS OF 25TH INFANTRY DIVISION

Senator INOUYE. Finally, as we were walking down to the committee room you told me that certain units of the 25th Division were sent to Desert Storm. Can you tell me about that?

General VUONO. Yes, sir; as you know, it is important that we train and fight as squads, platoons, tank crews, and sections. We wanted to have in-country some additional squads and sections to have them available if needed. We wanted them to be cohesive squads, and so, as part of our plan, we designated certain elements from both CONUS units, Hawaii and Europe, that we would deploy into Saudi Arabia and have available. Out of that, we needed mechanized elements and we needed light infantry elements to be available, so in that package were several squads that we designated from the 25th Infantry Division, and they, in fact, did deploy as part of that replacement package.

TRAINING

Senator INOUYE. As one who in his very early youth participated in an ancient war, I am always amazed at the way our young people have reacted on the first day of combat. They have never seen blood before this, but somehow they come through with flying colors, and this war was no exception. What do you attribute that to?

General VUONO. Well, Mr. Chairman, I attribute it to a number of factors, but I think the most significant factor is training. I, as you know, feel very strongly about training, and I have used the phrase, "a trained and ready Army." I honestly believe that the key to success is having great soldiers with great equipment who know their doctrine, have tremendous sergeants and officers as leaders, and are trained to a razor's edge.

We reviewed a little film clip the other day of two enlisted soldiers—one sergeant and one corporal, I believe—who had been wounded, and when asked about it, one said, "When you are in combat there is fear; and when fear is there, training takes over and you do things because you have been trained to do them."

We found in Operation Just Cause the same thing. The soldiers said certainly they were afraid, but they were confident because they had trained together, their leaders had trained with them, and they had fought together and they were going to be successful.

So if I had to put one characteristic down on why they fought so well, I would say it is because they were well trained.

Senator INOUYE. Do we have enough money in the budget to make certain that our men and women are adequately trained?

General VUONO. Mr. Chairman, I have given a lot of thought to that. As we have designed the budget and as we have tried to work the program, the Secretary and I have been adamant in not siphoning off the training funds that I think we have built into the program to support the force structure that we have, and we are projected to have; but Mr. Chairman, it is a very fragile and delicate balance.

If I could make one plea to the committee, I would ask you to support the funds in the operating and investment accounts that are directly or indirectly related to training our soldiers, our units, and our leaders, because that is what has paid off on the battlefield. If there were additional money, I would certainly be putting it in those operating accounts so that I could ensure that we had the robustness needed in our training effort.

Senator **Inouye**. I ask that as the last question, because if we had not learned that in Korea I hope we would have learned this in Desert Storm, that if we do not train our men and women properly we are going to send them out to the slaughter, and I think as public officials that is the last thing we should be even thinking about.

With that, I would like to in behalf of the committee thank both of you for the great service you have rendered to our country, and to you, General Vuono, I wish you the best in the years to come.

ADDITIONAL COMMITTEE QUESTIONS

[Clerk's note.—Additional questions submitted by subcommittee members, together with the Department's responses, will appear in the appendix portion of the hearings.]

SUBCOMMITTEE RECESS

Senator **Inouye**. This subcommittee will stand in recess until tomorrow morning at 9 a.m., when we will receive testimony from the Secretary of the Air Force and the Chief of Staff of the Air Force for the fiscal year 1992 Air Force budget request.

Thank you very much.

[Whereupon, at 11:38 a.m., Wednesday, March 6, the subcommittee was recessed, to reconvene at 9 a.m., Thursday, March 7.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1992

THURSDAY, MARCH 7, 1991

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:05 a.m., in room SD–138, Dirksen Senate Office Building, Hon. Daniel K. Inouye (chairman) presiding.

Present: Senators Inouye, Leahy, DeConcini, Bumpers, Harkin, Stevens, Garn, Kasten, D'Amato, Rudman, Specter, and Domenici.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE AIR FORCE

STATEMENT OF HON. DONALD B. RICE, SECRETARY OF THE AIR FORCE

ACCOMPANIED BY GEN. MERRILL A. McPEAK, CHIEF OF STAFF, U.S. AIR FORCE

OPENING STATEMENT OF SENATOR INOUYE

Senator INOUYE. The subcommittee is pleased to welcome the Honorable Donald B. Rice, Secretary of the Air Force, and Gen. Merrill A. McPeak, Chief of Staff of the Air Force, as they provide testimony on the Air Force budget request for fiscal year 1992.

The budget under review continues the trend toward a smaller, leaner force structure begun several years ago. The Air Force budget provides for a modest 0.8 percent real growth over fiscal year 1991 and a 1.7 percent real growth in fiscal year 1992.

At $86.8 billion, the request provides for a phased downsizing of the fighter force from 35 to 26.5 wing equivalents by fiscal year 1995. Similar reductions apply in Air Force manpower, with military manpower dropping by nearly 22,000 and civilian end strength by over 16,000 in fiscal year 1992.

In adjusting to new fiscal constraints, the Air Force is recommending termination of a number of programs, including the advanced tactical aircraft, the F–16 procurement beyond 1993, the Peacekeeper missile, and the Tacit Rainbow missile programs, to name just a few. Other programs, such as SRAM–II and SRAM-T missile, will be restructured.

AIR POWER PLAYS DECISIVE ROLE

The successful prosecutions of Operations Desert Shield and Desert Storm have made clear the decisive role air power can play on the modern battlefield. It also has proven the value of American high technology and the importance of proper systems integration. Any lingering doubts over the effectiveness of our stealth aircraft, particularly the F–117, should now be put to rest.

Equally impressive was the Air Force's employment of smart munitions which allowed our bombers to score precision strikes against hardened Iraqi targets with a minimum of collateral damage. Never before has the world witnessed such military capability applied by men and women of unmatched skill, courage, and professionalism, and the statistics of the war speak for themselves.

For nearly 6 weeks, U.S. tactical air and strategic air forces ruled the skies over Kuwait and Iraq. They flew approximately 112,000 missions, including nearly 60,000 combat sorties, against the enemy. Preliminary estimates are that the Military Airlift Command moved nearly 484,000 passengers and 520,000 metric tons of cargo to the Middle East between August 2 and March 1.

Through it all, U.S. Air Force ground crews have been able to handle this surge of activity with a readiness rate comparable to that at their home bases under ideal conditions, which is a truly extraordinary accomplishment.

TIME FOR SELF-EVALUATION

Operation Desert Storm provides us with a fresh opportunity to take stock of ourselves, our war-fighting doctrines, and the choices we have made regarding military preparedness. Our success, however, should not be allowed to obscure the difficult decisions which lay ahead, decisions on the future of our air and sealift capability, the health of our industrial base, and the defense management reforms which have yet to be fully implemented by the Department.

There is much work to be done to ensure that in the next conflict American forces enjoy the same margin of success they have known in the gulf.

I believe I speak for this subcommittee when I say that all of us are proud of the job done by the Air Force and by its able leaders. You have written a new chapter in the annals of American military history and should be justly proud. Once again I congratulate all of you on a truly remarkable campaign, and the subcommittee looks forward to working with you in the weeks and months ahead as we begin the process of reviewing the Air Force budget request to ensure that the achievements of the present will continue into the future.

Before proceeding, do any of my colleagues have any statement they would like to make?

Senator **GARN**. I have no opening comments.

Senator **RUDMAN**. I have no opening statements, Mr. Chairman.

Senator **D'AMATO**. Mr. Chairman, I have one or two questions I would like to submit for the record.

Senator **INOUYE**. With that, Mr. Secretary, welcome again, sir. General McPeak, welcome, sir. Please proceed as you wish.

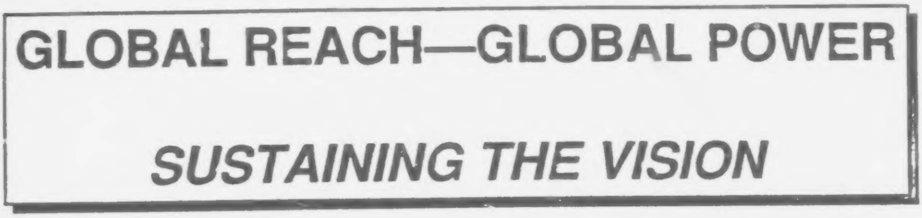
Secretary **Rice**. Thank you, Mr. Chairman. We very much appreciate the opportunity to appear before you this morning and to lay out the Air Force proposals in the President's budget for fiscal year 1992–93, and as well as to discuss the 6-year plan that lies behind that.

We have provided a statement which I would like to ask if it could be entered into the record.

Senator **Inouye**. Without objection, your full statement is entered into the record.

PRESENTATION BY SECRETARY RICE

Secretary **Rice**. I believe all the members of the subcommittee also have a set of charts, and we appreciate the opportunity, Mr. Chairman, to run through these charts with you and present the program that way. If it is all right with you, I will go to do that now.



GLOBAL REACH—GLOBAL POWER

SUSTAINING THE VISION

I am told, Mr. Chairman, that the microphone we had set up somehow did not make it electronically, so I will try to do it without a microphone, and if I am not speaking loudly enough I hope you will let me know.

As the committee will remember, we laid out in a white paper that was published last June a strategic vision for the future of the Air Force in terms of the role it could play providing its part of our overall national security capabilities. We entitled it "Global Reach—Global Power."

GLOBAL REACH—GLOBAL POWER
A Strategic Planning Framework

Nuclear Deterrence

- Maintain stable balance with Soviet Union
- Sustain theater nuclear deterrence
- Deter emerging regional nuclear capabilities

Conventional Power Projection/Contingency Forces

- Contain local/limited war and tension; restore the peace
    - Purpose of power projection
    - Emphasis on rapid, mobile, lethal, long-range, flexible
- Hedge against turnaround in risk of global war
- Control of sea, air, and space lines of communication
- Security assistance and complementary force planning with security partners

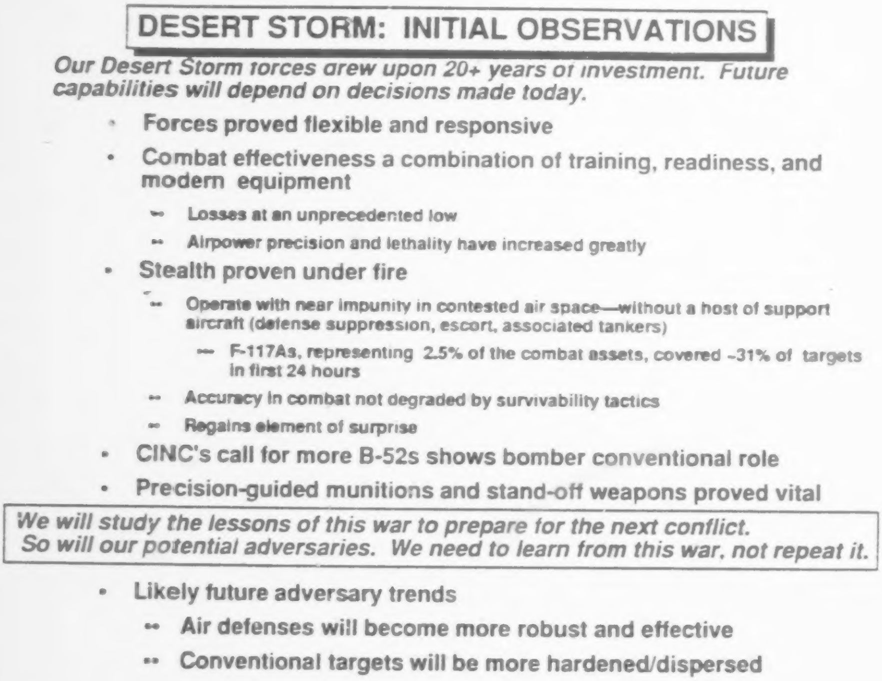
It called for a strategic planning framework which is summarized in this chart. It would set out the major areas, which I know the Secretary and the Chairman have elaborated before the committees in their testimony, the key things that the Nation has to be able to accomplish with its military capabilities in the areas of nuclear deterrence, in the area of conventional power projection, and also carrying out these changes in a way that makes sure that we hedge against a turn-around in the risk of what is happening in the Soviet Union and that we pay attention to particular needs, such as control of sea, air, and space lines of communication, and areas of security assistance.

PLANNING OBJECTIVES

- Sustain Deterrence—*Nuclear Forces*
- Provide Versatile Combat Force—*Theater Operations & Power Projection*
- Supply Rapid Global Mobility—*Airlift and Tankers*
- Control the High Ground—*Space and C3I Systems*
- Build U.S. Influence--*Strengthening Security Partners and Relationships*

For the Air Force, then, we can develop from that broader national security guidance several areas of planning objectives. We need to be sure that we do our part in sustaining nuclear deterrence; that we provide versatile combat forces for power projections for contingency operations, for theater operations.

We are responsible for a key part of the rapid global mobility that our forces need. Airlift and tankers, of course, are our part of that. And we are responsible for the lion's share of DOD activities in space, and so we think also of the objective of controlling the high ground and worrying about our space and C^{3}I systems. And the Air Force, of course, has a special role in working with our security partners around the world.



DESERT STORM: INITIAL OBSERVATIONS

Our Desert Storm forces drew upon 20+ years of investment. Future capabilities will depend on decisions made today.

- Forces proved flexible and responsive
- Combat effectiveness a combination of training, readiness, and modern equipment
  - Losses at an unprecedented low
  - Airpower precision and lethality have increased greatly
- Stealth proven under fire
  - Operate with near impunity in contested air space—without a host of support aircraft (defense suppression, escort, associated tankers)
    - F-117As, representing 2.5% of the combat assets, covered ~31% of targets in first 24 hours
  - Accuracy in combat not degraded by survivability tactics
  - Regains element of surprise
- CINC's call for more B-52s shows bomber conventional role
- Precision-guided munitions and stand-off weapons proved vital

We will study the lessons of this war to prepare for the next conflict. So will our potential adversaries. We need to learn from this war, not repeat it.

- Likely future adversary trends
  - Air defenses will become more robust and effective
  - Conventional targets will be more hardened/dispersed

Now, before going on to our specific program, I want to take just a moment to recognize that there are lessons to be learned from Desert Storm. When we laid out the global reach—global power vision last year, we, of course, had no way of being able to anticipate that we would have such an early opportunity to demonstrate many of the concepts that had been laid out there.

The work of learning from Desert Storm will, of course, go on for a long time as more and more detailed investigations are done. But some things are quite clear on the front end. The forces that we employed, as I think you recognized in your comments, Mr. Chairman, drew on the investments that had been made in the past.

We know that combat effectiveness was due to a combination, not just of the cutting edge technical systems we had, but of the quality of the people in our Armed Forces and the extensive training and readiness support that we had provided them over the years.

As you pointed out, Mr. Chairman, stealth has clearly been proven under fire. The F–117's operated with impunity in contested air space. They represented only about 2.5 percent of the combat assets once all the air forces were deployed to the theater by the start of Desert Storm, and yet they covered about 31 percent of the targets in the first 24 hours under the air-tasking order.

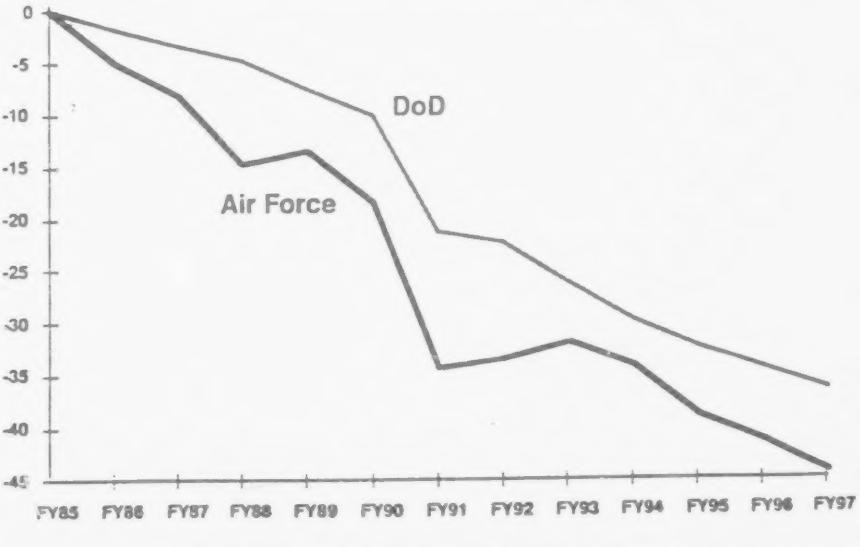
Night after night they went against the hardest targets and against the most heavily defended targets, and were in that sense the backbone of the strategic air campaign.

We have also seen the effectiveness of the long-range heavy bomber used in a conventional role and, as you point out, Mr. Chairman, precision-guided munitions and standoff weapons also played a critical role and we have seen their effectiveness in action.

We do not expect, of course, to study this war in order to fight it again, but rather to learn what we need for the future, and we need to recognize as we do that our adversaries will also learn from this experience, and so some of the things we will have to accomplish will get harder to do in the future than they were this time around.

BUDGET TRENDS

Purchasing Power Cumulative Real Decline ($ FY92)



Turning to our budget and program, I would like to give you this overview of what is happening to purchasing power. You have seen this top line in presentations by the Secretary of Defense. That has been the path since fiscal year 1985 of purchasing power for the total Department of Defense budget.

As you can see, the Air Force budget has been coming down through fiscal year 1991 even more rapidly than the DOD budget as a whole. The Air Force budget through fiscal year 1991 is already down 35 percent purchasing power from the 1985 peak. We are headed down to about 45 percent by the end of 1997.

And again, Mr. Chairman, as you pointed out, the Secretary and the President's program attempts to make a little correction here for a couple of years before putting us back on a path parallel to the decline of the whole Department.

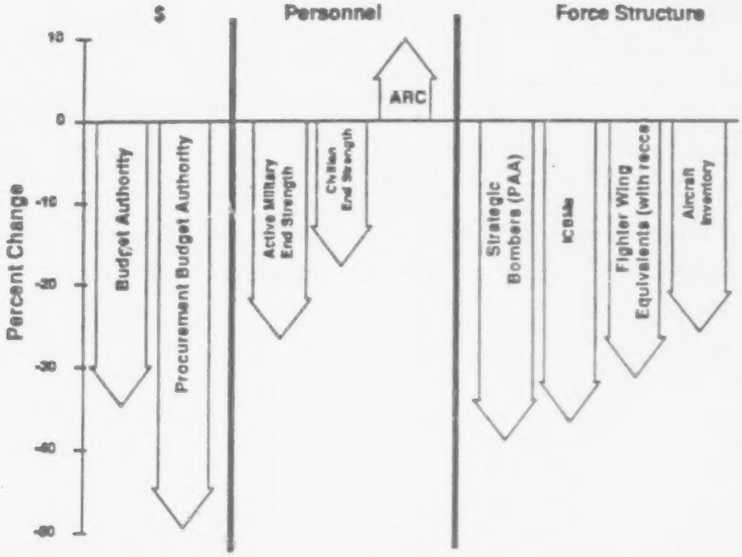
DEVELOPING THE AF BUDGET: GUIDING PRINCIPLES

- Sustain Global Reach—Global Power to underwrite national strategy
- Scrutinize programs top to bottom for relevance
- Analyze mission areas systematically
  - To re-examine most important requirements
  - To rethink investment strategies
- Balance funding to meet CINC's warfighting requirements in major mission areas
- Streamline and increase efficiency
- Exploit America's aerospace technological edge

As we have developed the Air Force program, we have tried to be guided by a number of key principles. We, of course, were trying to sustain the global reach—global power vision to the maximum extent we could within the limited resources we now have available.

We have been through all of our programs from top to bottom to make sure we retain the ones that are most relevant for the future. We have analyzed every mission area and tried to face up to the tough tradeoffs that are involved in each mission area, while balancing our resources across the needs of all of the unified commanders, the unified and specified commanders.

AIR FORCE BUDGET AND PROGRAM TRENDS
Percent Changes, 1985-1995



We have made a major effort in streamlining and efficiency to reduce the overhead costs of the Air Force in this outyear program. This chart summarizes 1985 to 1995. We will be down about 35 percent in budget authority overall, down about 50 percent in procurement budget authority in that 10-year period in purchasing power.

Active duty personnel, down over 25 percent in that time; civilian personnel, down about 18 percent. The only thing going up in the Air Force from 1985 to 1995 is the Reserve component strength. They grew some in the 1980's and we are essentially stabilizing that level as we go to the outyears of the program.

Many of the major areas of force structure are declining—strategic bombers, ICBM's, the fighter wings, as the Chairman has noted, and the overall active inventory of aircraft. And we will come back to specifics on these as we go.

STRATEGIC DETERRENCE

Objective: ***Maintain TRIAD and sustain military sufficiency, flexibility, and stability in post-START force***

- **Bomber force: Flexible, stabilizing**
  - **B-2**
    - **Backbone of future bomber force**
    - **Stealthier operations than F-117 & greater payload/range than B-52 or B-1B—combine for extraordinary versatility**
    - **Only stealthy aircraft fielded in the 1990s**
    - **Supports thrust of arms control**
  - **B-52**
    - **Increase flexibility; decrease force size**
- **ICBMs: Adjust to the new realities**
  - **Begin retirement of MMII**
  - **Validate Rail Garrison basing mode; terminate PK missile buy**
  - **Continue Small ICBM development**

I want to now run quickly through the four major areas, strategic deterrence first. The bomber force, of course, we continue to believe, is an essential element of the triad of our nuclear capabilities. It remains the most flexible and most stabilizing element of strategic nuclear power.

The B–2, of course, is intended to be the backbone of our future bomber force. It will offer us a level of stealth that will provide greater operational capability and flexibility even than the F–117 does and it will combine that with a payload range that will beat the B–52 or the B–1B, a truly extraordinary level of capability.

BOMBER INVESTMENT* AS % OF DoD BUDGET

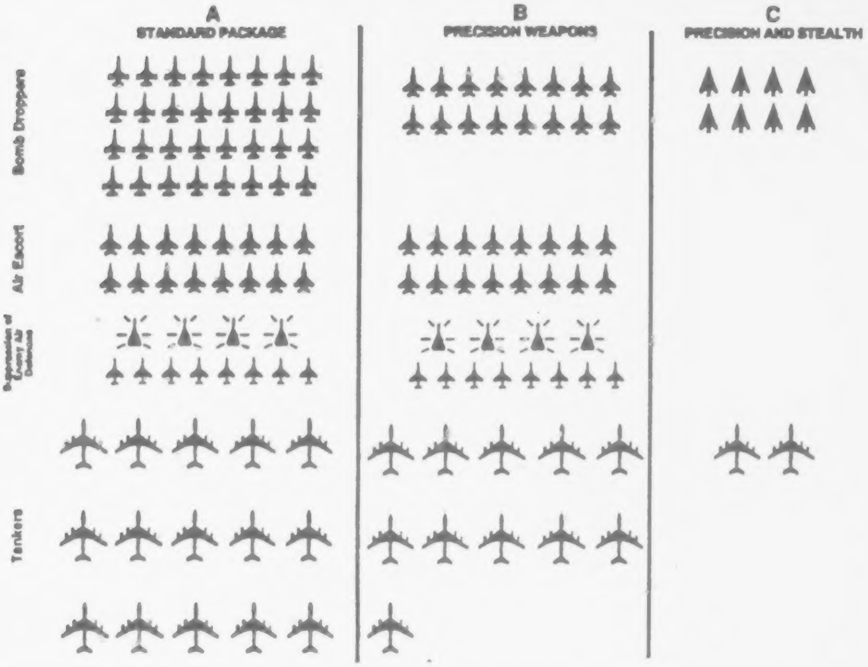
	PEAK FUNDING YEARS								
	1	2	3	4	5	6	7	8	9
B-36	1949 $\boxed{2.3}$	1.4	1.4	0.7					
B-47	1.5	1951 $\boxed{6.2}$	3.2	2.0					
B-52	0.7	1.1	0.4	1.2	2.0	1957 $\boxed{3.0}$	1.6	0.6	1.2
B-1B	1.0	2.0	2.6	1985 $\boxed{2.7}$	1.8				
B-2	1.4	1992 $\boxed{2.0}$	1.8	1.7	1.4	1.2	0.3		

* R&D Dollars are included

If I can take a minute with some supplementary charts here, we have tried to show on the chart on your far right that the issue of affordability is one that we all have to grapple with here. We have had to grapple with it in putting this budget together. I know it is a concern on the minds of the committee.

What we show there is, even with this reduced budget, the B-2 program does not approach the same levels of commitment as a percentage of the defense budget to a single program as we have done with our previous bomber programs in history, and some of those, as you can see by the dates, occurred at times, like in the late fifties, when funds were pretty scarce for defense programs, and others of them occurred in times when funds were more available. But in all the earlier cases, we put higher proportions of the defense budget into our bomber program.

THE VALUE OF STEALTH



One chart here for you that is an attempt to illustrate the value of stealth. On the left-hand side—I think you all have copies of these in front of you and so I apologize for some of the small print. But on the left-hand side of the chart, package A is an illustration of an actual raid that was flown in the early days of Desert Storm, the first few days of Desert Storm.

It shows in the top part the number of attacking aircraft, and then below that the number of fighter-escort aircraft that were sent along with them to protect them from air-to-air intercept; next, the number of standoff jammer aircraft that went along with the raid to suppress the enemy radars; and then below that the number of what we call Wild Weasel aircraft in the Air Force, that can fire a special HARM missile that homes on enemy radar, again to protect them against the surface-to-air missile air defenses; and then below that the tanker force that it took to support that armada in the air.

The middle section shows that if, rather than standard aircraft delivering regular iron bombs, we had used some of the relatively small number of aircraft we had available capable of delivering precision-guided munitions, so-called smart bombs, that it could have been done with fewer attacking aircraft to do the same job, but the escort load would have been about the same; fewer tankers overall because a somewhat smaller number of total aircraft going.

If you then were to send instead the F–117 to do the same job, it takes a y[illegible] smaller number of attacking aircraft to do the job because each of them can cover more than one target and none of the escort resources would have had to have been sent along; and, of course, a very small number of tankers to support that.

So you see in this kind of display quite starkly, I think, why we believe that stealth, even though it is clearly expensive on an individual platform basis, is, in fact, a bargain when we look at the overall employment of air power, what you have to do to go do the job, what you have to send along, the support that has to be provided to do the job of nonstealthy systems, and the number of people that are put at risk is clearly greater in the case of nonstealthy systems than stealthy systems.

The point about people at risk is important, too. Those stealth aircraft not only did the magnificent military job that they were called upon to do, but they clearly saved lives on both sides in this conflict, and that was important to us as well.

We are reducing the B–52 force during this multiyear program, mainly by eliminating the ALCM-carrying B–52G's. We will retain the dedicated conventional B–52G's, and we will increase the capability for conventional operations on the B–52H's during this program.

ICBM's, significant changes there. We are retiring the Minuteman II during this program. We are going to validate the rail garrison program, but there is not a commitment in this multiyear program to procure and field the rail garrison. And we are continuing small ICBM development as well.

THEATER/CONTINGENCY FORCES

Objective: ***Enhance capability to project power—increase lethality and freedom of action***

- **Fighter force structure**
  - **Reduce from 38.5 (including recce) to 26.5 tactical fighter wings (terminate F-16 procurement in FY93)**
  - **Aggressive 15.25/11.25 active/ARC mix**
  - **Embedded recce forces**

Fighter Force Sizing (Tactical Fighter Wings)

	AC/ARC
• Forward presence in the 1990s	~7.0/0.0
• Desert Storm	10.1/0.9
	17.1/0.9

Turning to theater contingency forces, there we are worried about the Air Force's part of the capability of our joint forces to project power. We have again, of course, just seen an outstanding demonstration of that kind of capability in Desert Shield and Desert Storm.

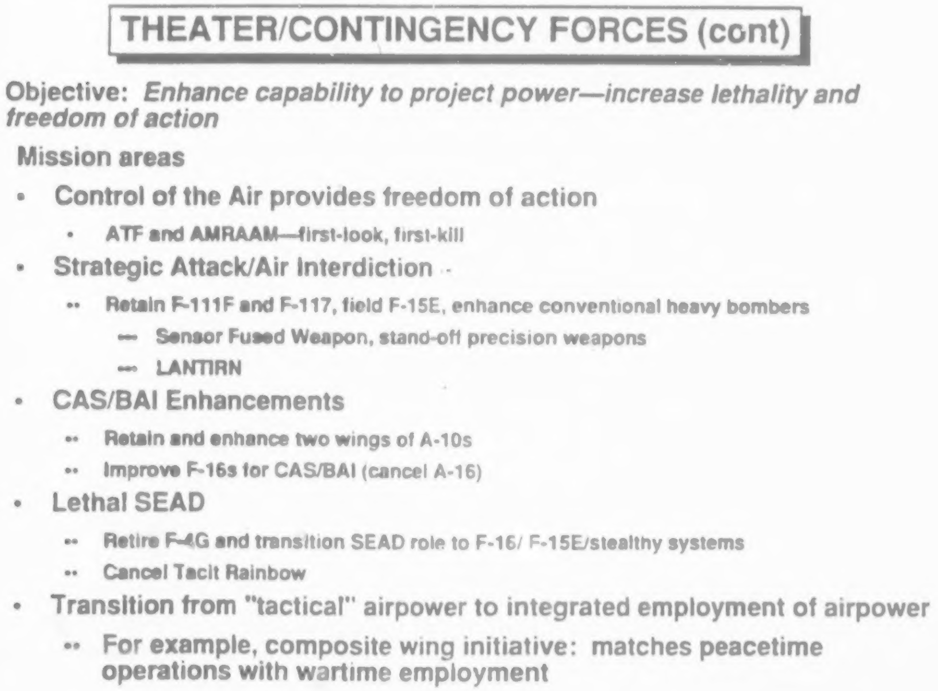
Fighter force structure. Mr. Chairman, if we are to do an apples-to-apples comparison, because our 26.5 tactical fighter wings that we are headed for includes the recce, the reconnaissance components of our fighter force in that number, to do apples to apples we really should add them into the starting point as well. They had not traditionally been counted in the fighter wing equivalents number.

So we really are going from 38.5 to 26.5 fighter wings, an even more significant reduction than has been shown in some of the numbers that you have seen.

We are planning to continue F–16 procurement from 1992 to 1993, but then terminate it. We have built a program with a very aggressive 15.25-to-11.25 Active to Reserve component mix. One way to think about the size of the fighter force we will have left is to look forward to the amount of forward presence that we expect to see in Europe and in the Pacific, including Alaska, in the future, on the order of 7 wings, down from about 12.5 that we have had historically. Nearly all of that reduction will come out of Europe.

If we were then to try to do the Desert Storm deployment the way we did this time for the fighter force, about 10 wings coming out of the Active and about 1 out of the Guard and Reserve, you can see that that adds up to a total active force larger than we will have available.

So in this future environment we are looking at, if we are to maintain the forward presence and also get called upon to do a scenario like Desert Storm, what this means is we will have to draw a couple more wings from the Guard and Reserve as part of such a deployment than we did this time. I just present you that arithmetic to give you a sense of how the force sizing fits with the scenarios we have seen recently.



THEATER/CONTINGENCY FORCES (cont)

Objective: *Enhance capability to project power—increase lethality and freedom of action*

Mission areas

- Control of the Air provides freedom of action
  - ATF and AMRAAM—first-look, first-kill
- Strategic Attack/Air Interdiction
  - Retain F-111F and F-117, field F-15E, enhance conventional heavy bombers
    - Sensor Fused Weapon, stand-off precision weapons
    - LANTIRN
- CAS/BAI Enhancements
  - Retain and enhance two wings of A-10s
  - Improve F-16s for CAS/BAI (cancel A-16)
- Lethal SEAD
  - Retire F-4G and transition SEAD role to F-16/ F-15E/stealthy systems
  - Cancel Tacit Rainbow
- Transition from "tactical" airpower to integrated employment of airpower
  - For example, composite wing initiative: matches peacetime operations with wartime employment

There are a number of specific areas we need to go through, and I will not try to brief these in great detail to you. I want you to understand that we have been through each of them and made tradeoffs within each of these areas.

Control of the air, obviously the principal air mission. We must maintain air superiority. The advanced tactical fighter and the AMRAAM missile are the key to making sure that our forces continue to do that well into the next century.

In the strategic attack and air interdiction area, we will be retiring all of the F–111's except for the F–111F's, which are the ones that have the smart bomb, the laser-guided bomb capability, and we will, of course, keep the F–117. We are fielding the F–15E. We will have about two wings of the F–15E with the purchases that have been provided in the budget. As I mentioned, we will enhance the capabilities on the B–52H's for conventional heavy bomber capability, as well as putting significant conventional capabilities on the B–2 as it comes into the force.

We are pursuing advanced weapons, standoff and overflight delivery; and, of course, the LANTIRN system will be fully fielded.

Close air support has been another area that has gotten a lot of interest and discussion in recent times. This reduced force structure that we are planning on will retain two wings of A–10's and it will enhance them in terms of their close air support capabilities. We will improve additional F–16's for the close air support mission and cancel the earlier plans to pursue an A–16 program.

For capabilities to lethally suppress enemy air defense, we will need to retire the F–4G, the Wild Weasel. It is on an old platform. It is very expensive to operate. But we will transition that kind of capability over to F–16's and F–15E's and to stealthy systems over the course of this 6-year program. In light of all that, we have decided we can cancel the Tacit Rainbow program.

So in each of these areas, we have made some tough tradeoffs and retained what we think is most essential for the future.

As we make the transition, we want to make the transition in this time period from the concept of tactical air power to the concept of integrated employment of air power, as you have seen in Desert Storm, and so we will be working on some initiatives that General McPeak is spearheading to organize and operate and train the Air Force in peacetime more like the way it needs to go to war.

MOBILITY/REACH

Objective: *Enhance rapid response and service interoperability capabilities*

- C-17
    - Flexibility vital in unpredictable environment (Just Cause/ Desert Shield/Desert Storm)
    - Program progressing, remains clearly the best/most cost-effective solution to our airlift needs
- C-130H procured to modernize tactical airlift—proved essential in DS/DS
    - Make up for C-17 intra-theater contribution eliminated by MAR and replace aging C-130Es
    - Off the shelf capability—no development cost
- Tanker multipoint initiative
    - Add drogue pods to KC-135Rs and probes to F-15/16
    - Enhances efficiency, flexibility, and interoperability

In the area of mobility and reach, again you have seen the tremendous capability that the airlift force has been able to demonstrate in Just Cause and Desert Shield and Desert Storm. C–17 is key to being able to continue that capability in the future, and I just provide you some additional backup material here on the C–17.

You know it combines uniquely a cross-section better than the C–5, a capability to operate in ramp space and with flexibility on the ground that is more like the C–141. It gives us greater throughput. It would enhance our capabilities significantly whether we were in a Just Cause-sized operation or in a Desert Storm kind of operation.

And as the Deputy Commander of TRANSCOM has noted, we might not always have the luxury in the future of 161 days to position the forces.

C-17 VERSATILITY

> *"The C-17 offered the most capability at least cost in every case."*
>
> **SECDEF Cheney to Congress on the range of MAR scenarios**

- **In an airfield constrained environment (Panama, 12/89), C-17 would allow deployment of a JUST CAUSE-sized force in just over half the time**
- **Even in a relatively unconstrained airfield environment (DESERT SHIELD), C-17 could deliver significantly more power**
  - **e.g., 12 more fighter squadrons and 2 more brigades in first 12 days**
- **DESERT STORM urgent requirement to airlift several hundred HEMTTs illustrates importance of outsize airlift capability**

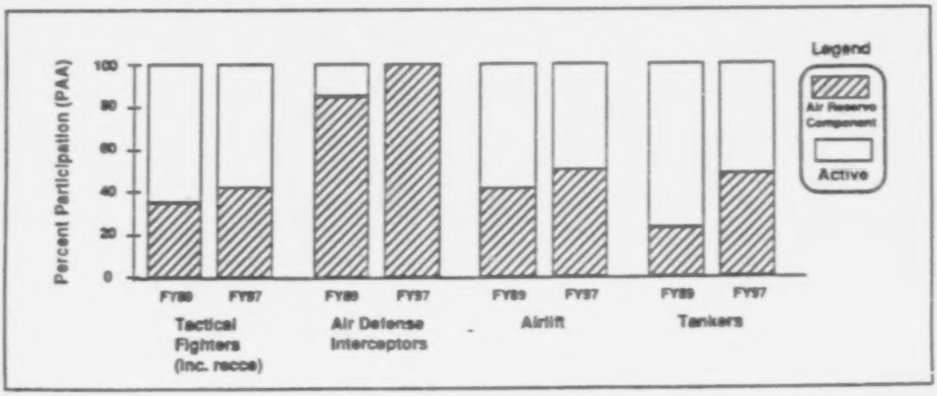
> *"We may not always have the luxury of 161 days to position our forces"*
>
> ***VADM Butcher, DCINCTRANS***

Tactical airlift, another area we need to tend to. With the cutback in the C–17 program from 210 to 120 aircraft, we will not have as much contribution to the theater airlift role for the C–17 as had been planned on earlier. So we are making sure we can modernize at a prudent pace the Active component of the C–130 force structure, and you will see a proposal for us to buy some C–130H's in our budget for the active C–130 components.

We also have an initiative to expand and increase the flexibility and the interoperability of our tanker force by adding drogue pods to the KC–135's and probes to our fighters, which will increase the offload capability and the flexibility we can get from a limited tanker force.

AIR RESERVE FORCE PARTICIPATION
IN KEY MISSION AREAS

- Drawdown primarily from Active; sustain Air Reserve Component strength
- Retain all ARC flags
- Extensive modernization of ARC forces
- Heavier reliance on ARC in most major mission areas



Behind all of this, of course, is a story about what we are doing with the total force concept with the Active and Reserve mix. I want to try to summarize that for you. In this Air Force 6-year plan, the drawdown comes along entirely from the Active force. We are sustaining the strength of the Reserve components at the late 1980's level. We are retaining all of the Reserve component flags. We are carrying out extensive modernization of the forces in the Reserve components.

The net result of all of that is we end up with heavier reliance, relatively speaking, on the Reserve components in essentially every mission area that they are involved in in the Air Force.

SPACE/C3I

Objective: ***Balance funding to meet range of critical requirements***

- Communications
  - Restructured MILSTAR program in accordance with Congressional guidance
    - Increase tactical orientation, decrease cost
- Warning
  - BSTS terminated
  - DSP sustained; technology pursued for possible follow-on
  - OTH-B mothballed
- Surveillance
  - JOINT STARS proven in combat
  - Adjust Space-Based Wide Area Surveillance (SBWAS) to technology development program
- Navigation
  - GPS constellation complete in FY93
- Advanced launch development

Space integrated into the battlefield in Desert Shield/Desert Storm

In the space and C^3I area, again we had some tough tradeoffs to make. Communications: the MILSTAR program, pursuant to some guidance and encouragement from the Congress, has been restructured. It has been downsized by two and it has been modified to focus much more on serving tactical users, and we think that program, therefore, with those changes, should continue as our highest priority C^3I program.

In the warning area, we have again faced some tough tradeoffs. We have terminated the BSTS satellite program. The DSP program will be sustained and we are still working within the Department on what kind of an affordable follow-on to DSP might be possible. We will have more for the committees on that subject, I hope, within a few weeks. We are examining mothballing OTH–B in recognition of the much greatly reduced risk of a mass aircraft raid coming at us from the Soviet Union.

Surveillance systems: You have seen the performance of Joint STARS in combat in Desert Storm, and that program, of course, is provided for continued development and deployment in the budget. And we have put any notions about a space-based wide area surveillance program back into the technology exploration mode, simply on affordability grounds.

BUILD U.S. INFLUENCE

Objective: Strengthen security partners and relationships

- Air Force provides a range of flexible capabilities to support U.S. national security. Since 1947:
  - >120 Air Movements of National Influence and >360 Humanitarian operations
  - >80 Presence/Shows of Force missions
    - AWACs, Joint STARS, and RC-135s together provide new avenues for non-lethal deterrence
- Commonality of training and systems enhances interoperability and security interests with allies
  - Have trained tens of thousands of foreign pilots and other military students since the 1950s (>45,000 since 1980).
  - USAF share of DoD's FMS: ~45%
- USAF currently engaged in 200 cooperative scientific and R&D projects

The Air Force, with its Global Reach—Global Power, will continue to serve as a vital policy tool in the coming decades

The Air Force continues to play its role in relationships with our allies and security partners around the world. We have just tried to summarize some information here for you on the number of times that air forces have been called upon that do not involve going into combat situations and the extensive role that the Air Force plays in the training of foreign pilots and other military personnel in their air forces, in the air forces of our friends around the world, and we will, of course, continue to play that important role.

CROSS CUTTING ISSUES

- Readiness and sustainability
  - Highest levels ever, but indicators show a reversing trend, e.g. WRM
  - Trade-offs made, but balance exists
- Management initiatives
  - Merge AFLC and AFSC to create seamless life-cycle system management
  - Reduce HQs 25-30%
  - Eliminate 15 of 19 Air Divisions and all Reserve Numbered AFs
  - Establish Packard and DMR acquisition management
  - Streamline, de-layer, reduce overhead across Air Force
- RDT&E
  - Protect robust technological base despite declining budgets
  - Restructure and strengthen Air Force laboratories
- Manpower and personnel
  - Quality people essential in a smaller force
  - Active military endstrength down 71,900 from FY91 to FY93 requests
  - Civilian endstrength down 38,000 from FY91 to FY93 requests

There are a number of crosscutting issues that we have had to tend to. Readiness and sustainability: We are seeing today in the forces in Desert Storm and elsewhere around the Air Force the highest levels that probably we have ever had in the Air Force. We are concerned about the outyears in that regard. We believe we have provided for an adequate WRM, war reserve materiel, funding level in fiscal year 1992 in the budget. It is not as much as we would like to have, but we think adequate for going forward.

We note that the committees of the Congress zeroed the war reserve materiel funding for the Air Force in fiscal year 1991, and that is an area where we would obviously like to work with you as this year goes on.

We have undertaken a wide range of management initiatives within the Air Force to reduce overhead, to streamline, to de-layer, to consolidate activities where that makes sense, all in an effort to make sure that we get our infrastructure, our overhead, our tail, as you will, down in relation as we bring the teeth down, as forces reduce over time.

We think we have protected a reasonably robust technological base despite these declining budgets and, of course, we have paid attention throughout this program to the things that are essential for being sure we maintain quality people in the force as we go forward.

SUMMARY

- **Desert Shield/Desert Storm has illustrated importance of airpower to underwrite U.S. national security**
- **Global Reach—Global Power outlined AF's strategic planning framework**
- **FY92 budget sustains that vision with greatly reduced resources**

Objective: Smaller force with cutting edge capabilities and top quality people

So in summary, Mr. Chairman, we have had a chance, perhaps an unanticipated chance, to demonstrate, as you pointed out, to illustrate the importance of air power in the overall equation for U.S. national security. We have a strategic planning framework for the Air Force now which we think is guiding quite well our specific programmatic decisions and choices as we go forward.

The budget that has been provided, put before you, sustains that vision, and we are always trying to focus on our ultimate objective of recognizing that as we go to a smaller force we want to do it in a way that maintains the cutting edge capabilities and the high-quality people that we have seen in operation in Desert Storm. We believe that we have maintained the key modernization programs in this budget that will allow us to ensure that, if the Air Force is called upon to repeat its Desert Storm performance a decade from now, that we will be able to employ the same kind of cutting edge and superior capabilities that we have just seen in action.

Mr. Chairman, with that summary, let me ask if General McPeak would like to add a comment, and then we are ready for your questions.

[The statement follows:]

STATEMENT OF SECRETARY DONALD B. RICE

Mr. Chairman and members of the committee, at the time this statement was drafted, the President had just announced the cessation of offensive activities in Operation Desert Storm. U.S. forces, in conjunction with forces from allied nations, have achieved a stunning success. While we share the Nation's pride in all the forces, the events of the past few months have demonstrated to the nation the importance of airpower in modern conflict. Our Desert Storm forces—from all the Services—have drawn upon over twenty years of investment to provide the nation with the kinds of responsive and flexible capabilities needed to underwrite U.S. national security. Future capabilities will depend, in turn, upon choices made today.

In Operation Desert Shield/Storm, our air forces have proven flexible and responsive—their combat effectiveness the result of a combination of training, readiness, and modern equipment. Stealth, perhaps the most revolutionary set of technologies since the advent of radar and the atomic bomb, has been proven under fire. F–117A aircraft have operated with impunity in contested air space, without the host of support aircraft (air escort, defense suppression, and associated tankers) required by more conventional airframes. For example, F–117As, representing 2.5 percent of the combat assets, covered approximately 31 percent of the targets in the Air Tasking Order for the first 24 hours of the air campaign. Precision-guided munitions and stand-off weapons have also proven their merit in destroying critical elements of Iraq's war machine. And General Schwarzkopf's call for more B–52s has illustrated the continuing importance and utility of conventional heavy bombers.

We will carefully study the lessons of this war to prepare for the next conflict. So will our potential adversaries. In future, air defenses will likely become more robust and effective; conventional targets more hardened and dispersed. We need to be prepared for the future—to learn from this war, not repeat it.

GLOBAL REACH—GLOBAL POWER

During hearings held at the same time last year, the Air Force laid out its strategic planning framework for the future. Entitled Global Reach—Global Power, this framework capitalizes upon the inherent characteristics of airpower—speed, range, flexibility, precision, and lethality—to help underwrite U.S. national security. Operation Desert Shield/Storm has shown this global reach and global power in action. In its planning for FY 1992/93, the Air Force followed the Global Reach—Global Power framework in applying resources. The President's FY 1992/93 budget sustains this vision to support U.S. national security for the long term.

Extraordinary international developments over the last few years have created the potential for a significantly different security environment as we approach the beginning of the 21st Century. These changes do not promise a tranquil world nor an end to threats to American interests around the globe. Soviet policy declarations reflect changes in Soviet intentions, but the ultimate direction of the Soviet Union is far from clear. Many developing nations possess formidable arsenals of growing sophistication, which, as demonstrated recently by events in the Arabian peninsula, can threaten U.S. interests and allies.

In the face of these uncertainties, the fundamental U.S. national security objective remains the preservation of the United States as a free and independent nation. The foundation of our defense strategy is deterrence—deterrence based on a mix of nuclear and conventional forces, strong allies, forward defense, aerospace and maritime superiority, and power projection capabilities. We must continue to deter a Soviet nuclear attack and stabilize the nuclear balance through arms control coupled with prudent modernization. For conventional forces, the focus has shifted to regional contingencies. To contain local and limited wars, we must improve our capabilities to project power—the United States must increasingly emphasize rapid, mobile, and lethal long-range capabilities.

This new world we are rapidly moving into plays to Air Force strengths—rapid, deployable, long-range, flexible, and lethal capabilities, which can deter, provide a tailored response, or punch hard when required. The Global Reach—Global Power framework lays out five main objectives and associated forces for the Air Force to deal with this uncertain world:

Sustain deterrence—nuclear forces; provide versatile combat force—theater operations and power projection; supply rapid global mobility—airlift and tankers; control the high ground—space and C^3I systems; and build U.S. influence—strengthening security partners and relationships.

The process of developing plans to support these objectives was conducted within the constraints of downward trends in defense spending. Continuing concern over the federal deficit has made tighter defense budgets a way of life, forcing the Air Force to make many difficult decisions to provide the full range of capabilities needed in the challenging future. Figure 1 provides a dramatic illustration of the challenge facing the Air Force in the 1990s. By FY 1997, our purchasing power will have declined 45 percent from the peak funding year of FY 1985.

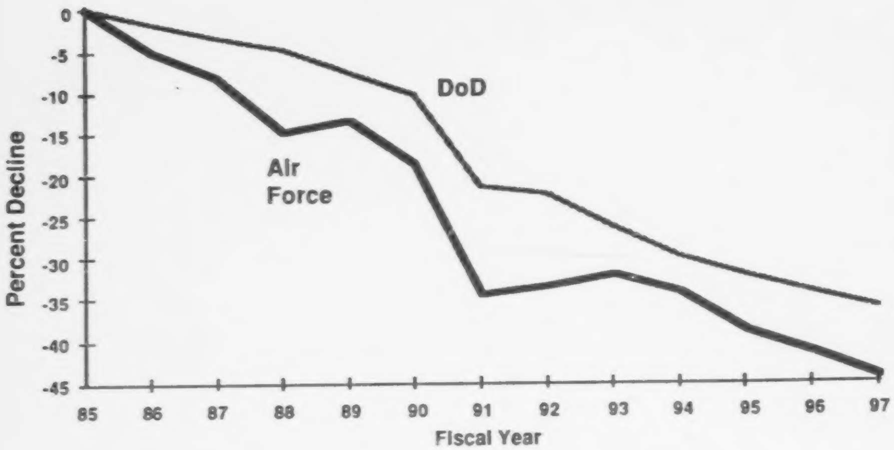


Figure 1—Purchasing Power Cumulative Real Decline
(in FY92 Constant Dollars)

After several years of dramatic decline, the Air Force's FY 1992 budget request for $86.8 billion in total obligational authority (31.1 percent of the total DOD request) provides a modest real growth over FY 1991 of 0.8 percent. The biennial budget also requests $91.7 billion for FY 1993, a 1.7 percent real growth over FY 1992. These modest increases reflect the need to capitalize upon long-planned investments in order to modernize and retain capabilities in essential mission areas. In subsequent years, Air Force plans respond to continuing downward projections in defense budgets.

To develop the FY 1992/93 budget, every program was scrutinized from top to bottom for relevance. We analyzed each mission area systematically to re-examine our most important requirements and rethink investment strategies. The results exploit America's aerospace technological edge to ensure maximum combat capabilities for the long term. At the same time, we have ruthlessly pursued efficiency to get the most combat power out of tax payers' dollars.

The Air Force has deliberately chosen to sacrifice size while continuing modernization and preserving readiness—to provide a smaller, but balanced, ready, and sustainable warfighting force. The dramatic reductions are illustrated in Figure 2. The Air Force is reducing active and civilian end-strength and increasing reliance on the Air Reserve Component to the maximum extent possible. We are also substantially cutting our bomber, ICBM, and fighter force structure. To sustain the combat effectiveness of this smaller force and position ourselves for the long-term challenge, we will continue to pursue the most vital modernization programs.

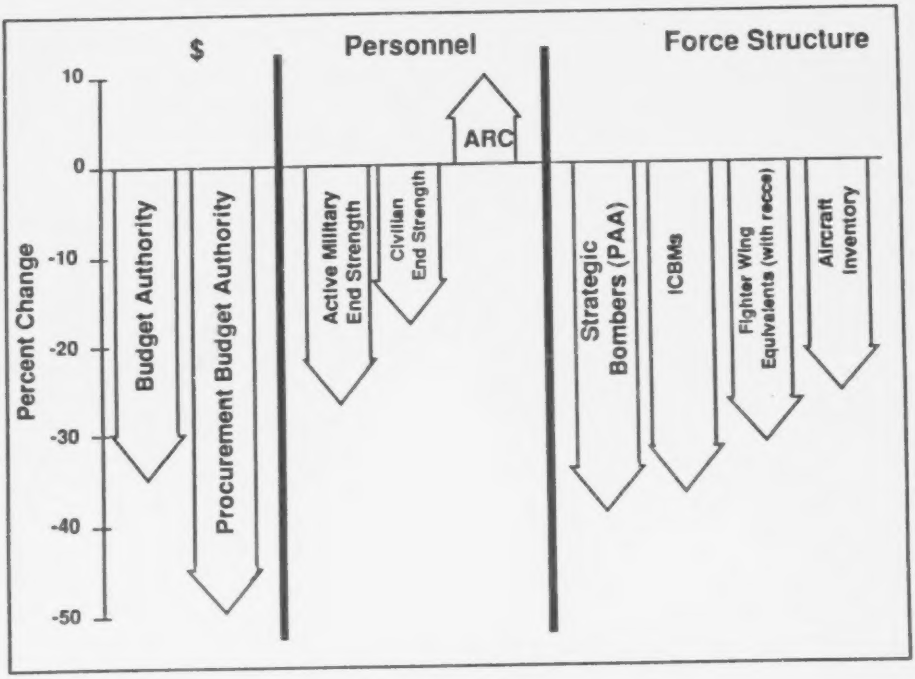


Figure 2—Air Force Budget and Program Trends, Percent Changes, 1985-95

SUSTAIN DETERRENCE—NUCLEAR FORCES

Deterrence of nuclear attack is the cornerstone of U.S. national security. The Soviet Union remains the only nation capable of destroying the United States, and for the foreseeable future the Soviets will retain the capability to deliver thousands of nuclear warheads against our nation. The TRIAD concept remains fundamental. Each leg of the TRIAD possesses unique and complementary characteristics which synergistically provide a retaliatory capability that no adversary could hope to successfully overcome. Air Force objectives in sustaining strategic deterrence are to maintain military sufficiency, flexibility, and stability in the post-START force. We continue scaled-back plans to modernize the two legs of the TRIAD provided by the USAF: bombers and ICBMs.

THE BOMBER FORCE

The USAF's commitment to maintaining a viable long-range bomber force is rooted in the historical experience of long-range bomber development and operations, the bomber's indispensable role in supporting nuclear deterrence, and the unique versatility that makes it a particularly effective weapon for conventional operations and the projection of U.S. power.

The rapid changes to the global security environment have added unprecedented uncertainty to our security planning, increasing the importance of flexibility and adaptability. As we have seen in Operation Desert Storm, when the theater commander needed increased firepower, he called for additional heavy bombers. Understanding the versatility of heavy bombers—in both nuclear and conventional operations—is the key to understanding their utility. The Air Force remains committed to ensuring the long-term viability of the bomber force.

In the nuclear arena, the bomber enhances the stability of the nuclear balance. Its high survivability promises any aggressor that an attack will be met with devastating retaliation, while its relatively slow speed compared to ballistic missiles means that the bomber does not pose a credible first strike threat. Because it can be generated, dispersed, launched under positive control, and then recalled or redirected, the bomber also provides our nation's leaders with a highly flexible means of sending a variety of unmistakable messages to an adversary—messages that can help defuse and stabilize crises.

The United States currently fields two major types of heavy bombers—penetrating bombers and stand-off cruise missile carriers. A balanced combination of penetrating bombers and cruise missile carriers enhances deterrence by complicating the enemy defensive problem and adding targeting flexibility. Cruise missiles have proven to be a valuable complement to the penetrating bomber force; they extend the lives of older bombers no longer capable of penetrating effectively, add mass to the bomber attack by saturating defenses, and are excellent weapons against many fixed targets. The manned penetrating bomber is an extremely efficient, flexible, and effective system. The key to the penetrating bomber's warfighting versatility and efficient weapons delivery is the presence of a crew in the cockpit capable of reacting to situations and making decisions.

Moving to a pure cruise missile force would eliminate the advantages provided by penetrating bombers and introduce new vulnerabilities. Using long-range radars, airborne radar platforms, tankers, and fighters, Soviet air defenses could focus on detecting, tracking, and engaging non-stealthy cruise missile carriers before they could launch their missiles. Such an approach would not work against a stealthy penetrating bomber. The USAF's highest priority is the acquisition of 75 B–2 bombers, the only stealth aircraft planned for fielding in the 1990s.

The advantages provided by stealth have been proven under fire. Figure 3 shows why such a small percentage of our combat aircraft—the F–117 force—was able to cover such a large proportion of the target base in Desert Storm operations. Stealthy aircraft can penetrate defenses without the range of support assets required by non-stealth airframes—stealth provides more combat capability from a smaller number of assets with less risk to personnel. Stealth also aids in accurate delivery of munitions in combat—the accuracy of stealthy aircraft is not degraded by survivability tactics. And such systems allow us to recapture the element of surprise. The B–2 will offer stealthier operations than the F–117 and greater payload/range capability than the B–52 or B–1B—the aircraft will provide extraordinary versatility in supporting nuclear deterrence and enhancing our conventional warfighting capabilities. And that is the kind of flexibility we need in our future smaller force structure.

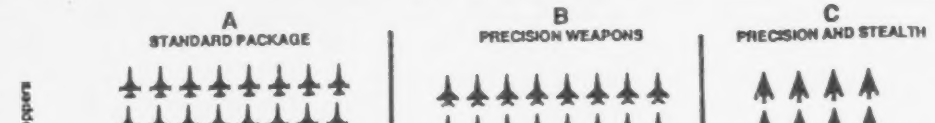


Figure 3—The Value of Stealth

Based on the need to balance reductions across all accounts and stabilize annual B–2 funding within a constrained resource environment, the budget limits annual B–2 investment (procurement and RDT&E) to approximately $5 billion. Peak year funding for the B–2 is lower than any bomber in modern U.S. aviation history—ranging from the B–36 up to the B–1. Some of these bombers were procured in relatively parlous times, but room was found for them within the agreed-on budget constraints, just as we have found room for the B–2. This budget funds four aircraft in FY 1992 and seven aircraft in FY 1993.

With the B–2 as the backbone of our bomber force, we will continue to upgrade the B–1B fleet and elements of the B–52 force. A defensive avionics recovery plan has been developed for the B–1B. And over the next few months, we will complete follow-on operational test and evaluation for conventional bombing certification of that aircraft. Budgetary pressures require us to accelerate retirement of the B–52G cruise missile carriers, although two squadrons of dedicated conventional B–52Gs will be retained. The B–52H force will transition to a pure cruise missile force, armed with both the Air Launched Cruise Missile (ALCM) and the stealthy Advanced Cruise Missile (ACM). Approximately half of the B–52H force will be upgraded to also support conventional operations, thus increasing their versatility to meet the demands of this uncertain world environment.

ICBM'S

ICBMs make unique contributions to the TRIAD. They are valued for their promptness, reliability, accuracy, low operating cost, connectivity, and availability—while their near 100 percent alert rate allows the other two legs of the TRIAD to operate at more economical tempos.

Soviet advancements in ICBM accuracy and increased MIRVing led to increasing concern over the survivability of our silo-based ICBM force and the potential for crisis instability. Adding mobility was deemed to be the best method of addressing these problems, which in turn led to the development of the Peacekeeper Rail Garrison (PRG) program, where Peacekeeper missiles would be mounted on trains, and the Small ICBM (SICBM) program, where single warhead missiles would be mounted on Hard Mobile Launchers (HMLs).

Our adjusted ICBM modernization plans reflect the new realities of the post-Cold War era. Mobility comes at a high cost to procure and operate. And potential future arms control talks beyond START are increasingly focusing on reducing or eliminating heavily MIRVed land-based systems such as Peacekeeper and the Soviet SS–18.

These factors have led to a re-evaluation of our missile modernization plans. We intend to validate the PRG basing mode, but will pause deployment awaiting future developments. Future Peacekeeper missile buys will be terminated. The SICBM program will continue in development—the choice of a silo or mobile basing mode can be made when directions in the strategic balance become clearer. Whether mobile or in silos, the single warhead SICBM will be more stabilizing during periods of crisis than heavily MIRVed ballistic missiles.

Given anticipated START constraints on Soviet ICBMs, reductions in the threat to our missile silos allow longer-term reliance on the Minuteman missile force. Over the next few years we will begin retiring MMIIs. The MMIII force will be retained and their silos upgraded with new computers and launch control facilities. Depending on START outcomes, we will retain the option to download MMIII to a one warhead configuration in the future.

PROVIDE VERSATILE COMBAT FORCES—THEATER OPERATIONS AND POWER PROJECTION

In contrast to fairly stable nuclear deterrent objectives, the focus on regional contingencies will cause more fundamental changes in conventional forces. Our plans for USAF theater/contingency forces will improve our capabilities to project power—to increase lethality and enhance freedom of action. The ability to concentrate force in a responsive manner over great distances is a key attribute of the Air Force. During Operation Desert Shield, for example, an F–15 squadron was in place, ready to fight 7500 miles from its home base, within 38 hours of the deployment order. Five fighter squadrons and a contingent of AWACS aircraft were in place within four days of the order to deploy. The Air Force's ability to project power, as well as readily adapt to changing circumstances and environments, will be increasingly important in the future.

Operation Desert Storm has highlighted the importance of training, readiness, and advanced equipment. Together they have provided a potent warfighting capability—with aircrews ready to do the job right the first time out, and with historically low casualty rates. To continue providing a modern, balanced, and effective fighter force within realistic budget constraints, we plan to significantly reduce our fighter force structure—from 38.5 tactical fighter wings (including reconnaissance assets) to 26.5 wings. This smaller force requires fewer new fighters—F–15 production has ended and F–16 production will be terminated in FY 1993. To provide the most cost-effective force, we plan an aggressive 15.25/11.25 Active/Air Reserve Component (ARC) mix.

One of the first considerations of a theater commander is control of the air—since the advent of modern airpower, no major conflict has been won without it. Control of the air (air superiority) protects surface forces and provides freedom of action for surface forces and air forces. For example, the air supremacy established in Desert Storm allowed General Schwarzkopf unparalleled freedom of maneuver in his air/ground battle. U.S. forces have come to take air superiority for granted. Our ground forces have not had to operate without air superiority since the early stages of World War II—and not a single U.S. soldier has been killed by an enemy air attack since 1953. Air superiority is also a question of where control of the air will take place. Since World War II, the United States has enjoyed the ability to control the enemy's airspace as well as our own. But to maintain control of the air into the next century, we need to modernize our air-to-air fighter forces. Two programs—the Advanced Tactical Fighter (ATF) and the Advanced Medium Range Air-to-Air Missile (AMRAAM)—are the keys to maintaining control of the air for the long term.

The ATF marries stealth, advanced avionics, and advanced performance (notably agility and supersonic cruise) to ensure control of the air—in both our own and enemy airspace—in the 21st Century. In Operation Desert Storm, our fighter forces engaged adversaries equipped with what were, in some cases, equally advanced aircraft—superior training, tactics, and operational art proved to be the edge. Future adversaries will learn from this war and such advantages cannot be counted on to prevail. The ATF, combined with high quality training, will ensure that we maintain that edge for the foreseeable future.

The ATF program fits the Packard Commission acquisition recommendations and provides a model for future programs. The Packard Commission recommended a prototyping strategy for early testing and streamlined acquisition management. In 1986, the ATF entered a 56 month demonstration/validation phase. Since that time, we have tested various hardware and software prototypes, flown four prototype flight demonstration aircraft over 150 hours, met or exceeded radar cross section testing expectations on full scale models of the two prototypes, tested twelve prototype engines over 4000 hours, flown avionics flying labs on over 100 sorties, and tested avionics integration in ground laboratories. In addition, acquisition management follows the new Packard-recommended streamlined chain of authority. The ATF is our highest priority fighter program.

AMRAAM will provide existing and projected fighters with a critical edge in combat. Current radar missiles must be continuously guided to their target by the launch aircraft, which must keep its radar antenna pointed at the target until missile impact. This severely restricts the aircraft's maneuverability and reduces survivability—moreover, only one target can be engaged at a time. With AMRAAM, our pilots will be able to launch a missile at one target, maneuver, engage and launch at another target, and continue maneuvering—all while the missiles are independently homing in on their respective targets. Recent tests of AMRAAM have been very encouraging. The program will continue full rate production in FY 1992 (1000 missiles) and FY 1993 (1310 missiles).

An important component in control of the air involves suppressing enemy air defenses (SEAD). To maintain our effectiveness in this crucial area, we will replace the F-4G Wild Weasels with advanced capabilities on the F-16, F-15E, and future stealthy systems. Program difficulties and budget limits led to cancellation of the Tacit Rainbow defense suppression drone.

In attack operations, airpower's speed, range, and lethality allows rapid shifting of effects, concentrating firepower wherever the joint force commander needs it—from the close battle, across the length and breadth of the theater, to its deepest reaches. In the early days of Operation Desert Storm, our tactical fighters were employed for strategic effect—to reduce the enemy's capability and will to wage war. Our fighters engaged in interdiction operations to delay, disrupt, and destroy enemy surface forces and material and ensure a favorable ground force ratio at the point of contact. We also conducted air attack over the battlefield (close air support and battlefield air interdiction) by providing direct and indirect air support of ground forces.

To sustain these important attack capabilities, we will enhance our existing forces. The F-117A, which proved the promise of stealth technologies in Desert Storm, will be retained. Elements of the F-16 force will be provided with LANTIRN pods for precise night attack. The F-15E, capable of delivering precision-guided munitions (PGMs) at night, will be fully fielded—as these squadrons enter service, all of the F-111s, except the PGM—capable wing of F-111Fs, will be retired. The Air Force's next generation interdiction aircraft, the Advanced Tactical Aircraft (ATA), was to be a variant of the Navy A-12. In light of the A-12's cancellation, the Air

Force will consider the Navy A–12 successor and study the potential to adapt the ATF to an air-to-ground role. For close support work, we will retain (and enhance) two squadrons of A–10s and improve Block 30 F–16s to an F/A–16 configuration in place of the cancelled A–16 program.

New munitions—the Sensor Fuzed Weapon and stand-off precision weapons like the AGM–130B—will sharpen the claws of this smaller attack force. Overall, the future attack force will have greatly increased capabilities to deliver weapons precisely and at night. Recce pods will be procured for F–16s to eventually replace the RF–4Cs—such aircraft will not be maintained in separate squadrons, but will be embedded into existing units.

Our heavy bomber forces will be integrated into theater/contingency operations as the USAF transitions from "tactical" airpower and "strategic" airpower to the integrated employment of airpower. One key organizational initiative is the composite wing. Effective airpower employment depends heavily on the close integration of a range of assets—bomb droppers, fighter escort, jamming aircraft, lethal defense suppression aircraft, airborne radar platforms, tankers, airlifters, and the like. Under the composite wing initiative, many of the assets needed to form composite force packages will be located at one base under one commander. This will increase the speed at which we can deploy, significantly reduce C3 problems, and enhance warfighting effectiveness.

SUPPLY RAPID GLOBAL MOBILITY—AIRLIFT AND TANKERS

As forward forces decline, but global interests remain, mobility will be even more in demand. Strategic mobility lies at the heart of a credible deterrent posture in such an environment—without the capability to project power, there is no conventional deterrent. The Air Force provides two important components of U.S. strategic mobility: airlifters and tankers. Our objectives in the FY 1992/93 budget request are to enhance U.S. rapid response capabilities and increase interoperability among the Services.

AIRLIFT FORCES

To provide mobility for U.S. forces, the nation has historically relied on a balance of the complementary capabilities of the mobility triad: airlift, sealift, and pre-positioning. Each has advantages and disadvantages—we capitalize on each method's virtues to compensate for the others' limitations. Airlift is an ideally suited mobility tool for an environment of uncertainty with widely dispersed potential flashpoints. As Vice Admiral Butcher, DCINCTRANS, recently pointed out: "We may not always have the luxury of 161 days to position our forces."

Exhaustive studies over the past decade have produced a single, consistent answer—the C–17 is the right airlift aircraft for the future. These studies call for an airlifter that can fly long ranges and carry outsize cargo, while providing the tactical performance and agility to open up more airfields for global operations. The most recent analysis—the Major Aircraft Review (MAR)—was conducted at the request of Secretary of Defense Cheney. The study looked at a wide array of options in comparison to the C–17 program, including refurbishment of the C–141 force and procurement of other aircraft such as the C–5 or civil transports. Once again, the choice was clear. As Secretary Cheney testified to Congress, the analysis showed: "The C–17 offered the most capability at least cost in every case."

The C–17 combines current technologies to create what is in many respects a revolutionary capability—"direct delivery." Cargo and personnel can be flown from the United States or elsewhere directly to where they are needed. In short, the C–17 combines the advantages of a strategic airlifter like the C–5—speed, range, aerial refueling, and payload (including outsize cargo)—with those of a tactical airlifter like the C–130—survivability, ability to operate on short, unimproved airfields, agility and maneuverability in the air and on the ground, and the ability to employ different methods of airdrop. The C–17 is highly flexible, designed to efficiently meet the nation's airlift needs across the entire range of potential scenarios.

The importance of this flexibility can be seen in looking at the operations the United States has conducted in the past 14 months. In an airfield constrained environment (like Panama), the C–17 would allow deployment of a Just Cause-sized force in just over half the time. In a relatively unconstrained airfield environment (like Desert Shield), the C–17 would still deliver significantly more power—for example, 12 more fighter squadrons and 2 more brigades in the first 12 days. Desert Storm operations add emphasis to the importance of the C–17's outsize capabilities. When the Army needed several hundred refueling trucks rapidly deployed to support maneuver operations, the Free World had only the C–5 available—the C–17 could have helped pick up that load, and could have delivered them directly to wherever they were needed.

The first C–17 aircraft has completed assembly and is being prepared for first flight this summer. This budget funds 6 C–17s in FY 1992 and 12 in FY 1993—it also reprofiles the program to stabilize funding and provide a more modest ramp up to production of 18 aircraft per year. The Major Aircraft Review adjusted the program to a goal of 120 aircraft. The C–17 remains the Air Force's highest priority mobility program.

The reduction in the planned buy of C–17s—a decision taken for affordability reasons—requires modernization of our tactical airlift forces to make up for the C–17's intra-theater contribution eliminated by the MAR. The C–130 fleet is aging and elements require replacement. C–130Hs will be procured—these represent an off-the-shelf capability with essentially no development cost. This budget funds 8 aircraft in FY 1992 and 12 aircraft in FY 1993.

TANKER ENHANCEMENTS

Aerial refueling increases the nation's flexibility to respond in a timely manner across the entire spectrum of conflict. Inflight refueling increases the range and ordnance carrying capacity of receivers—demand for refueling has become increasingly important to deployments and combat operations. During the first four months of Operation Desert Shield, tankers flew over 10,000 sorties to offload fuel to almost 19,000 receivers. In the first 25 days of combat operations in Desert Storm, U.S. tanker forces flew almost 7,000 sorties to refuel about 20,000 USAF, Navy, Marine, and allied aircraft.

The KC–135 re-engining program, which provides modified KC–135Rs with a 50 percent improvement in refueling offload compared to the KC–135A, is continuing, although at a more affordable pace. In an effort to increase tanker efficiency, flexibility, and interoperability, the Air Force is also pursuing a multipoint initiative that expands on the existing KC–10 multipoint program. When refueling fighter aircraft in employment operations, tanker requirements are typically driven by time and distance constraints—within a given refueling orbit, only a certain number of aircraft can cycle through the single refueling point on our current tankers. Additional offload points—known as multipoint capability—can increase the number of fighters that can be refueled during the available time and increase operational efficiencies.

The multipoint initiative involves both fighters and tankers. The Air Force plans to add wing-tip drogue pods to KC–135R tankers. This will provide multipoint capabilities to a larger portion of our tanker force and reduce interoperability problems when refueling probe-equipped fighters (such as those fielded by the Navy, Marines, and allied nations). During the first 25 days of Desert Storm, for example, USAF tankers refueled about 4,300 Navy and Marine aircraft. Fitting probes to F–15s and F–16s will allow Air Force fighters to take advantage of multipoint tankers (although all of the fighters will retain their boom slots for maximum flexibility).

CONTROL THE HIGH GROUND—SPACE AND C31 SYSTEMS

Space is the high ground of the future. Space-based systems offer great military advantage: global coverage, low vulnerability, and autonomous operations. Smaller force levels and access to fewer forward bases will increase dependence on the force multiplying capabilities of space systems. Historically, the Air Force has been the principal provider of space systems for the Defense Department. The Air Force provides the infrastructure, approximately 90 percent of DOD's space-experienced personnel, and roughly 80 percent of the DOD space budget. Recent operations in Desert Shield/Storm have illustrated the unprecedented degree to which space systems have become integrated into day-to-day battlefield operations. Indeed, some have begun calling it the world's first "space war." Our objective in the FY 1992/93 budget is to provide a balanced level of funding to meet the full range of critical requirements for the long term in communications, warning, surveillance, and navigation.

Space-based communications assets provide for global, secure, and reliable command and control of forces. The Air Force's highest priority space/C3 program is MILSTAR. The program has been restructured to reflect congressional guidance. We have reduced overall costs, eliminated lower priority program features, retained essential capabilities, and increased the system's tactical orientation.

Attack warning systems have been restructured in light of affordability concerns and the decreased likelihood of a massive Soviet attack. The space-based Boost Surveillance and Tracking System (BSTS) program was terminated—in its place, we will sustain the Defense Support Program (DSP) and pursue technology options for a potential follow-on. Continued deployment of a forward line of radars which comprise the North Warning System will provide atmospheric coverage for North America. The Over The Horizon Backscatter (OTH-B) radar system will be mothballed. Should conditions dictate, the OTH-B line could be brought back into service within a few months.

Surveillance systems provide critical information to battle commanders, regardless of conflict location. Air-breathing systems will be enhanced greatly through the acquisition of the Joint Surveillance Target Attack Radar System (Joint STARS), which was recently proven in combat during Desert Storm. And E–3A Airborne Warning and Control System (AWACS) will be upgraded to provide a cost-effective enhancement to this system's proven capabilities. These systems, together with collection assets like the RC–135, constitute a deployable set of "eyes and ears" for the theater commander. The Space-Based Wide Area Surveillance (SBWAS) program has been adjusted to a technology development program.

Space-based navigation systems enhance global deployments of air, land, and sea forces, as well as provide pinpoint weapon systems accuracies. The Global Positioning System (GPS) satellite constellation should be complete in FY 1993. Troops in the featureless desert, sailors entering unfamiliar waters, and airmen conducting precision strikes have all attested to the critical contribution of this space-based system.

BUILDING U.S. INFLUENCE—STRENGTHENING SECURITY PARTNERS AND RELATIONSHIPS

The Air Force provides the capability to enhance security conditions, strengthen security partners, and project U.S. influence, often with limited or no use of U.S. forces. Since the formation of the Air Force, we have conducted over 80 shows of force/presence missions—on every major continent and over every major ocean. Beyond our lethal assets, long-range surveillance aircraft, such as AWACS, Joint STARS, and the RC–135 also provide the means to accomplish national objectives. Packages of surveillance assets are able to deter adversaries by letting them know we are watching their every move. In the 1980s, for example, AWACS aircraft have deployed over a dozen times to various troubled regions of the world. In future, Joint STARS and RC–135s can deploy in conjunction with AWACS to provide new avenues for non-lethal deterrence and assistance to allies.

Since 1947, the Air Force has conducted over 120 air movements of national influence—activities with relatively overt geopolitical overtones (the delivery of key materials, the movement of third country forces, and the evacuation of Americans and foreign nationals). When such operations need to be carried out quickly—as they almost always do—Air Force assets will be a key player. Humanitarian operations in response to disasters also play a role in supporting U.S. national security objectives by providing foreign populations with a favorable image of the United States. In indirect fashion, this can play an important role. How often has the Air Force been called upon to perform humanitarian operations? The answer is more often than most would realize—over 360 times since World War II.

Security assistance allows us to influence events and protect national interests in areas where more direct means of intervention are not viable. Air Force training and logistics aid are politically acceptable in many situations where other forms of influence are not welcome—and the commonality of training and systems enhances interoperability and security interests with allies. Since the 1950s, the Air Force has trained many tens of thousands of foreign pilots and other military students—over 45,000 since 1980. U.S. Air Force aircraft and associated items are widely recognized for their capability (and thus in demand), an impression that will be heightened by the extraordinary success of Operation Desert Storm. Today, the Air Force share of DOD's Foreign Military Sales program stands at approximately 45 percent. And the USAF is currently engaged in 200 cooperative scientific and R&D projects across the globe. The Air Force continues to posture itself to support these important avenues in building U.S. influence overseas and supporting the security interests of the U.S. and our allies.

CROSS-CUTTING ISSUES

To operate better and smarter, the Air Force is re-emphasizing efficiency and focusing on the process of continuously improving quality. The common denominator is capability. As we reduce in size, we must maximize capability by protecting quality forces, readiness, modernization, and research and development.

Quality personnel are essential for a smaller force. Active military end strength will decline 71,900 from the FY 1991 to FY 1993 budget requests; civilian end strength goes down 38,000 during the same period. An array of management initiatives help us absorb these reductions—we will streamline, de-layer, and reduce overhead across the Air Force. The integration of two major commands—Air Force Systems Command and Air Force Logistics command—will provide seamless life-cycle system management. We will reduce a range of headquarters by 25–30%. We will eliminate 15 of 19 Air Divisions and all Reserve Numbered Air Forces. Savings from these and other efficiencies mean more dollars available for modernization and people programs. And total quality management practices—such as those from the Packard Commission and the ongoing Defense Management Review process—are being implemented throughout the acquisition process to procure and sustain quality weapon systems cheaper and faster.

As the preponderance of cuts come from the active force, we increase the proportion of the Air Reserve Component (ARC) in just about every major mission area (see Figure 4). We will maintain all ARC flags and will continue to modernize ARC forces.

Training improves the quality of our forces. While reductions in the number of aircraft will reduce the flying hour program by 15 percent, flying hours per aircrew will remain at roughly the same level as today. But fiscal challenges are growing—we face rising costs per flying hour (partially because of fuel costs). Coping with these challenges will be complicated by the fact that approximately 85 percent of the O&M budget now represents fixed, "must pay" bills.

Our funding of readiness and sustainability in the mid-1980s paid off with spectacular mission capable rates in Desert Shield/Storm. Our readiness is at the highest levels ever. But indicators show a reversing trend. Little or no funding for war reserve material (WRM) spares since FY 1988 is beginning to show an impact. To arrest this trend, we propose to maintain a modest level of investment in WRM—continuing to make tradeoffs among our investment and O&M programs to create a balanced capability.

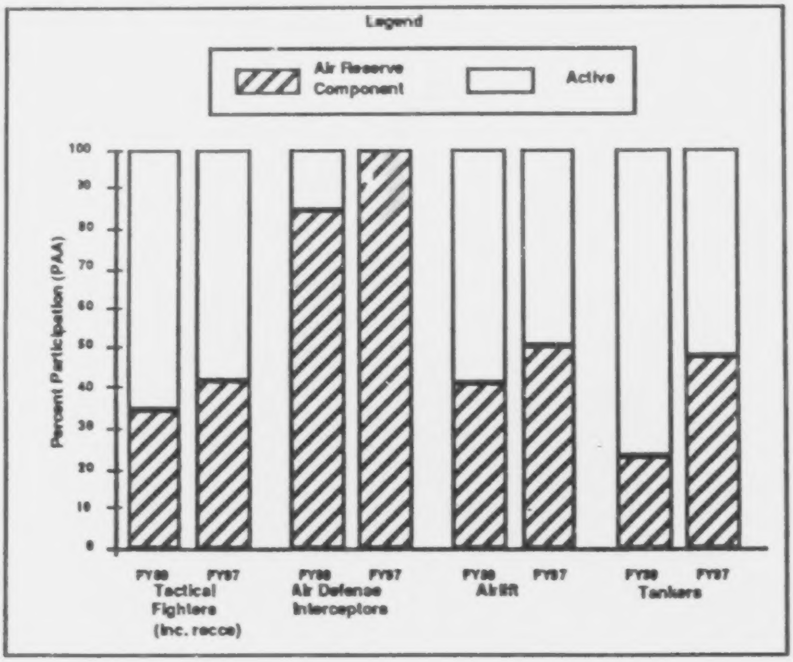


Figure 4—Air Reserve Participation in Key Mission Areas

Changes to our infrastructure are tied directly to our plans in other areas. Base closure actions are on track; but the future timing and funding of these actions are key to the successful implementation of our force structure reductions. Military construction (MILCON) for current projects experiences a real decline, while MILCON to support new or additional systems increases. Overseas MILCON stays at minimum levels.

Increasing Air Force concern for the environment is reflected in both policy and commitment of resources. Funding for environmental protection and cleanup approaches $1 billion per year for both FY 1992 and FY 1993—the highest ever.

Gaining the maximum capability from existing forces means drawing upon the force multiplying effects of technology. Despite declining budgets, a robust technological base is essential. In this budget, there is more emphasis on avionics and command, control, and communications technology. Organizationally, we are re-focusing research and development by restructuring Air Force laboratories for greater efficiency.

CONCLUSIONS

We know all the members of the Committee share our pride and admiration for the men and women of Desert Storm—from every Service. In the air, our forces have struck with a precision and effectiveness never before seen in history. Our success has been so overwhelming that some may be misled into drawing the wrong conclusion—that Iraq was a "paper tiger." Experts know how wrong such a conclusion would be. Iraq began the war with the fourth largest army and the sixth largest air force in the world—a force that was battle-tested and armed with front-line equipment such as MiG–29s and T–72s.

While time and analysis will undoubtedly uncover a number of reasons for the success, three will undoubtedly be key. The first is quality forces. There is simply no substitute for bright, well motivated people. The second is quality training. Our people were ready to do the job right the first time out—they didn't have to learn the hard way. The third is quality systems. We have given our people the modern equipment they need to do their job effectively, and do it with minimal casualties. The challenge now will be to look ahead to ensure we provide the capabilities our men and women will need ten years from now to defend our interests equally effectively.

The steps outlined in this budget protect quality forces, readiness, and modernization despite significant fiscal constraints. They do so by reducing force structure, streamlining organizations, decreasing overhead costs, and balancing sustainability. Declining budgets have posed real challenges—and we've had to make tough decisions. We've terminated numerous programs (Peacekeeper, F–16, Tacit Rainbow, ATA, A–16, Mark XV system, BSTS, OTH-B), and reprofiled and restructured many others (PRG, SRAM II/T, B–2, MILSTAR, C–17, and KC–135R, for example). Our objective is to create a smaller force with cutting edge capabilities and top quality people. The FY 1992/93 budget ensures that the future Air Force will possess capabilities needed to provide global reach and global power—capabilities that are essential to underwrite U.S. national security in an uncertain world.

IMPACT OF DESERT STORM ON BUDGET

Senator INOUYE. Mr. Secretary, I thank you very much.

The budget we have before the subcommittee at this moment is a result of many months, in fact many years, of consideration. I believe this process began 1½ years ago. Apparently, at the time this budget was being processed none of the planners projected or assumed or predicted that we would be involved in a conflict such as Desert Storm. Accordingly, the spending programs of this past fiscal year have been effected in a way not anticipated by Congress and obviously not anticipated by the services.

Some of the services, for example such as the Army, are now faced with a problem where it would be almost impossible, unless we take precipitous steps, to reach the end strength of fiscal year 1991 and then to go beyond that and meet the end strength of 1992, as the Chief of the Army indicated yesterday was close to being impossible. If they were forced to do so they would do it, but it would be jeopardizing their effectiveness and their readiness.

Apparently, all the services have to some degrees problems of similar nature. Accordingly, some of us are seriously considering calling upon our colleagues and the administration to come forth with a reassessment of this 5-, 6-year plan, keeping in mind the possibility of postponing or delaying by 1 year the end strength decisions.

Would the Air Force welcome a change such as that?

Secretary RICE. Mr. Chairman, we too have some difficulty at this point in achieving the 1991 end strength numbers. Our estimates all have some uncertainty in them now because of the question of just at what rate our troops will be coming home and, therefore, at what rate some of those who plan to get out will be able to do so.

We think it is in the neighborhood of 12,000 to 15,000 that we will need relief from the 1991 end strength. That, of course, then has a spillover effect into 1992. Our program as presented to you in the President's budget already assumed that we would need to take some level of involuntary actions in 1992 and 1993, most likely with the officer corps, to be able to achieve the end strength numbers that are shown in there.

So certainly the Air Force would be more than willing to participate in a process of reevaluating what now should be, after Desert Storm, the appropriate rate of drawdown of the personnel in particular in the forces in order to make sure that we treat these high-quality folks who have performed so well the way we should.

TIME REQUIRED TO ACHIEVE AIR SUPERIORITY

Senator INOUYE. Mr. Secretary, if we were faced with another Desert Storm situation in fiscal year 1995, with the projected end strength that you have in fiscal year 1995, how long would it take you to achieve air superiority? Double the time?

General MCPEAK. Sir, our problem in 1995 is not, I do not see, as an end strength-related question as much as a force structure question. As the Secretary pointed out, we will not be able to repeat in 1995 what we just did. We will run out of active forces.

Even with the drawdown of forward-deployed active forces, if we tried to put 10 wings, active wings, into Saudi Arabia and we had drawn down to 7 overseas, we would be a couple wings short of being able to do that. So it is more a question of the number of squadrons we would have than end strength.

Now, I think it is very hard to say, to hazard a guess, as to how much longer it would have taken us to gain air superiority. But if I can take the question into a little larger context, it took us about a week, 10 days maximum, to service what I would call the strategic target set, what we inside the Air Force were sort of calling phase 1 of the air war in the Persian Gulf.

That target set included the Iraqi Air Force. It also included their air defenses, ground-based air defenses, the nuclear, biological, chemical production, assembly, and to a considerable degree storage capability, the internal mechanisms of state control—Ministry of Interior, Ministry of Defense, that kind of thing; and the communications capability inside the country—radio and TV and so forth.

That took us about, say, 10 days. During that entire period of time, we were also working on the deployed army down in the Kuwaiti theater of operations. So it was not that we did nothing but the strategic target set for 10 days and then switched our attention to the field army deployed down in Kuwait, but there was a period when we sort of emphasized the strategic target set and then subsequently we sort of emphasized the field army down in Kuwait.

That first period was, as I say, on the order of 8 to 10 days. In my judgment, if we tried to do that in 1995 it would take us on the order of 25 to 30 percent longer to service the strategic target set, based on the reduction in force structure in the Air Force. That is kind of a guess, but about as close as I can come, a judgment call.

Secretary RICE. Mr. Chairman, the other area I think we are going to have to watch very carefully over time, we hope we have adequate resources laid in, and that is the whole area of readiness and training and war reserve stocks to be sure that we can sustain these forces, even these somewhat smaller forces, that we can sustain them in combat if a similar circumstance should arise, and particularly if it is one that might take even longer to resolve than this one did.

VALUE OF STEALTH

Senator INOUYE. I have been looking over your chart, the value of stealth chart, and it reminded me of a couple of articles that I read rather recently which suggested that one sortie, F–117 with smart munitions, had the effective kill of about 300 sorties of bombers and support aircraft in Vietnam and about 3,000 sorties of bombers and support aircraft in World War II.

Does that comparison make any sense?

Secretary RICE. I think it does, Mr. Chairman. If you look at the statistics from those days, we have gone from—the standard measure that is used is CEP, half the bombs fall within a circle or radius of that size. Bombing accuracies from medium altitude in World War II would have been in the thousands of feet, and in Vietnam days in the hundreds of feet, and now they are down within tens of feet and in the case of the precision-guided munition essentially zero CEP.

So when you simply run the numbers on how many aircraft you would have to fly and how many bombs you would have to drop to have a statistically confident kill of a specific target, the numbers come out very much as you just described.

Senator INOUYE. In other words, one stealth could conceivably do the job of 3,000 aircraft in World War II?

General MCPEAK. I would like to comment on that, because really we are talking about compared to what things. It makes such relationships hard for us to sign up to. If you have a big area that is the target, if it is, say, the Soviet tank production facility, which is many square blocks in size, and you run 3,000 World War II bombers against it, you are going to get craters throughout that area. If you run one F–117 against it, you are going to get a nice neat entry hole in the ceiling of one building and it is going to take that building down.

So I would not say that for all classes of targets one F–117 is going to do the job of 3,000 World War II bombers. Here are the points I would make about the F–117. We have a lot of evidence that it was extraordinarily effective. Some of it we would like to collect in the postwar period, a la sort of the strategic bombing survey we did after World War II, where we go in and take a look.

But where our ground forces have had access, for instance to Talil Airdrome in southern Iraq, we have found aircraft shelters, very hard structures, with nice neat entry holes on the roof where the F–117 munition went in, in through the shelter, into the floor, heaved the floor up against the ceiling, and tossed the reinforcing steel rods, the rebar, into the ceiling. And, of course, if there was any aircraft in that shelter it is probably going to be a few days before it is flyable.

Now, the F–117 did that kind of damage and was never touched, never scratched, never tracked as far as we know by any enemy radar systems. So it is a phenomenal performance in achieving the kind of damage you need to achieve against precision, hardened targets with relative invulnerability. Mathematical comparisons beyond that I think begin to have an element of ambiguity in them.

[The statement follows:]

STATEMENT OF GEN. MERRILL A. MCPEAK

Mr. Chairman and members of the committee, thank you, Mr. Chairman. It's a pleasure for me to be here today. I appreciate this opportunity to give you my views on key Air Force issues. I look forward to frank and open discussions with you today and during my tenure as the Air Force Chief of Staff.

The Air Force is in great shape. We have smart, dedicated, good people. Our flightline leadership is great. Our training is realistic. Our equipment is the best, our readiness is high and our sustainability is good. We work well with our sister services and our allies. Desert Shield/Desert Storm has demonstrated the strength of our Air Force to the world.

The conflict in the Persian Gulf required the United States to project military power as no other nation could. Within four days of receiving the order to move, the Air Force had five combat squadrons and an AWACS contingent in place, ready to defend Saudi Arabia. The Military Airlift Command moved more ton-miles of personnel and equipment in six weeks than the Berlin Airlift did in 65 weeks. The Air Force played a big role in deterring Saddam Hussein from invading Saudi Arabia.

When the fighting started, air power quickly set about meeting the President's objectives. Within ten days, the air campaign crippled or destroyed Saddam Hussein's nuclear, biological and chemical weapons development programs, his air defenses, his offensive air and ballistic missile capability and his internal state control mechanisms. We continued our attack on strategic targets to deny Iraq the ability to quickly rebuild them. In addition, we continued the campaign to reduce the fighting capability of Iraq's ground forces in Kuwait. The ground forces ability to overrun Iraqi forces in four days validates the value of the air campaign to the success in liberating Kuwait.

Despite the Middle East war, the global security environment, our national security environment and domestic priorities are shaping the way the Air Force will approach the future. By FY 1993, the real purchasing power of the Air Force budget will be 35 percent below the FY 1985 level. By FY 1995, the Air Force will have lost 170,000 manpower spaces. Despite these reductions, we are not convinced we can drop any of the aerospace activities this nation calls on us to provide.

Our challenge, then, is to determine how to remain a comprehensive, excellent Air Force with fewer resources. The Air Force has reduced modernization and is making significant internal changes to adapt to the future. We have canceled several major programs—F–15E, F–16, Peacekeeper Rail Garrison and Maverick missile as examples. Over the next six years, total aircraft procurement will be 283 bombers, fighters, and airlifters—our lowest ever. Several other programs are important for providing future capability and will be continued, such as JSTARS, Small ICBM, and MILSTAR. We will look at expanding our air refueling support capability by installing probes and drogues on our fighters and tankers, respectively. But the B–2, for strategic nuclear deterrence and long-range, conventional attack, the C–17, for strategic, direct delivery airlift, and the ATF, for air superiority, remain the key Air Force modernization efforts. They form the foundation for the Air Force of the early 21st Century.

The Air Force is also undertaking several restructuring initiatives. We're restructuring and downsizing the Air Staff, we're merging Systems and Logistics Commands, we're shifting a higher percentage of our forces to the reserve components, and we're delayering our organizations. Where feasible and appropriate, we'll task-organize some of our units into composite wings, combining a variety of aircraft in one wing, under one commander, to train, deploy, and employ as an integrated unit.

The Air Force was trained, equipped and ready to meet the challenges of Desert Shield and Desert Storm. Our ability to respond demonstrates the vision of past leaders. But we can't stop here. We will continue to press for needed modernization and will continue reshaping our organization to meet the changing world situation. We will continue to provide this nation with a comprehensive, excellent Air Force.

Senator INOUYE. Thank you very much.

Senator Stevens.

Senator STEVENS. Thank you very much, Mr. Chairman. I will be brief. I have a series of questions I would like to submit for the record, if I may, and I will get right down to being a little bit provincial, as I am wont to do.

CONVERSION OF F–4E

Senator STEVENS. We had the announcement that the F–4E squadron, F–4E squadron at Clark would be converted to an F–15E and be based at Elmendorf. General, could you tell us, how is that proceeding? Is it going to be affected at all by the force structure changes that we are hearing here today?

General MCPEAK. Sir, we plan to continue that conversion and to continue that beddown at Elmendorf. However, we have not got quite enough F–15E's to make it a 24-aircraft squadron. Accordingly, we will bed down 18 F–15E's at Elmendorf and there will be some slight adjustment in the end strength and so forth that goes in there.

Elmendorf will continue to grow because the addition of those 18 F–15E's does add both civilian and military end strength, but it will not grow quite as much as it was going to when we were taking the full 24 in there.

We lost three F–15E's in Saudi, one in a pre-D-Day accident and two in combat, and we already were kind of on the margin of having enough aircraft to fully bed down two wings, as the Secretary mentioned in his remarks. So 18 is all we will be able to put up there, sir.

Senator STEVENS. And the new ACMI training range in Alaska, will it continue on schedule to provide new training opportunities there for the Air Force generally?

General MCPEAK. As far as I know, sir, but I would like to go back and make sure of that. But we have not taken any action to delay or to cancel that ACMI.

[The information follows:]

ACMI TRAINING IN ALASKA

The ACMI training range in Alaska is proceeding on schedule and the Air Force foresees a timely completion of the range.

Senator STEVENS. The 342nd Tactical Fighter Wing in Alaska was converted from A–10 to F–16's. That was while you were the commander of the PACAF. Are you still satisfied that was a correct decision, to use the F–16 for close air support, in view of what has happened in Desert Storm?

General MCPEAK. Yes, sir. You may know that we also have elected to leave at Eielson a package of A–10's, OA–10's.

Senator STEVENS. OA–10's; yes.

General MCPEAK. That will be combined with that F–16 squadron. The relationship that we have established with the Sixth ID up there at Eielson has just been very good, and so we would never do anything to weaken that strong cohort team we put together up there with the Sixth ID. So I am very confident that really we will improve on just the squadron of A–10's we had there, because we will have a squadron of F–16's plus some OA–10's, and that will be a very good matchup for the Sixth ID.

OTH–B FOR ALASKA

Senator STEVENS. You may have to answer this for the record and I do not know, Secretary Rice and General McPeak, which of you would be the person to respond. But we have received a rescission request on the OTH–B for Alaska. I believe it is some $258 million rescission. And along with that was a notice that there would be a task force selected to go look at the situation with regard to the powerplant, the powerplant under construction now under contract with a private entity to provide the power for the OTH–B under a 20-year purchase contract.

My understanding is that the report should be back to you and to us by April as far as that part of the rescission is concerned. Would you tell me, will that task force be able to confer with local and State authorities to see if it is possible to integrate that powerplant into the power grid of Alaska to supplement existing defense installations as well as the civilian economy?

It looks to me like we may terminate that contract for the powerplant, pay off the contractor at a substantial cost, and the net result would be we would not have a powerplant that would be useful to anybody, including the military, would not be integrated into the grid for that force in Alaska.

Could you give us an update on that at all?

Secretary RICE. Senator Stevens, we would be happy to have the task force that is there look at all the options. If that is not already its charter, we will make sure that it is its charter, to examine all the possible options that ought to be considered, and we will certainly want to take them all into account.

That is, as you correctly point out, clearly an unfinished piece of business with respect to the OTH–B decisions, as to how the powerplant is going to be handled.

Senator STEVENS. Is the decision to mothball the OTH–B final now or is there a possibility that the Air Force may determine to maintain a standby capacity of OTH–B in the East as well as in Alaska?

Secretary RICE. As of this point, the program that is provided for in the President's budget is to mothball the existing ones and not proceed to deploy further OTH–B's.

MX MISSILE

Senator STEVENS. Finally, I am a little concerned about the reports we are getting up our way regarding the increased capability of the Soviets in the Soviet Far East and Siberia, the continued increase in capability, and also the statements that Secretary Cheney has made recently concerning the continued development of long-range ballistic missiles.

So I would like to ask you about the MX. We are informed that we are going to shut down the MX production before we have a completion of the START agreement and without regard, apparently, to the Soviet strategic modernization plans. Could you tell us, what strategic situation are we assuming for the beginning of the next century that would lead us to the concept that we ought to shut down the MX production now?

I think we would even run out of test missiles before the year 2000 under the scenario, as my staff and I reviewed it. Can you tell us about that? And what do we expect to have as a weapon system beyond the year 2000 if the MX is terminated now without regard to a START agreement?

Secretary RICE. Senator Stevens, there are really two parts to that. Of course, one is the Peacekeeper procurement, the procurement of the missiles, the numbers that are required to keep the existing 50 missiles adequately tested out through their life cycle. And the other part of it, of course, is what happens to the Peacekeeper rail garrison system.

We have made the calculation, based on a recommendation from the Strategic Air Command, that three operational test shots per year was sufficient to maintain the operational status of the missile, that we can stop Peacekeeper production with the expectation, therefore, that we could keep it operational into the next century. How many years exactly depends on different people's ideas of how many missiles need to be held in reserve in case some problem arises.

It has been the most successful ICBM in history, excellent development and operational test records so far. So we think the numbers of missiles we will have will carry it well beyond the turn of the century.

The other question, of course, the other part of it, has to do with Peacekeeper rail garrison system, and in light of the overall budget constraints and the assessment of the strategic situation, the President's budget program calls for continuing the development through a test shot from a train, but does not provide funds at this point for procurement and deployment of the rail garrison system.

So now, to come back to where your question started, our program is quite clearly based on assuming success in the START Treaty, and to some extent certainly assuming that beyond, that after a successful START I treaty, that the two sides will go on into a START II process that will be aimed at further negotiations, further reductions, and that those reductions, those further reductions, will focus heavily on the highly MIRV'ed land-based systems.

So that is the kind of calculus that is behind the overall program thinking, and we have tried to lay it out in a way that keeps options open for the next couple of years, so that if we see, if we are unable to conclude a START agreement or we become concerned about the pace of Soviet strategic modernization and deployment, we still have the chance to turn that decision around.

Senator STEVENS. Minuteman II is 20 years old and we have only got one ICBM production line, and as I read this it will phase out by the turn of the century. There is no other plan, right?

SMALL ICBM

Secretary **RICE**. We have the small ICBM fully funded for development in the 6-year plan, and on that schedule we would have that missile in production some time in the late 1990's.

Senator **STEVENS**. The decision to shut down the hot line is such that it could be reversed if the small ICBM is not approved?

Secretary **RICE**. I am sorry, sir. Shut down the hot line?

Senator **STEVENS**. There is only one production line going now for ICBM's. Will it be kept open long enough to make sure that the small ICBM is on a production line?

Secretary **RICE**. I will have to check that for you, Senator Stevens. I think the proposal as it stands is to stop procurement orders for Peacekeeper missiles with the fiscal year 1991 buy, and so I think the answer to that would probably be not likely, that the small ICBM would not be very far along before the production line for Peacekeeper actually shut down.

Senator **STEVENS**. Thank you. I would appreciate it if you would check that.

[The information follows:]

ICBM PRODUCTION

It seems likely that, except for a very limited number of Small ICBM test missiles, Peacekeeper production will not persist until Small ICBM production has begun. Funding for Peacekeeper procurement and production terminates in FY 1991. Delivery of the final Peacekeeper missile will occur in FY 1994. The Air Force does not plan to fund any additional Peacekeeper missile production. There is no Small ICBM production funding in the FYDP, but the Small ICBM RDT&E program will build 13 more test missiles between FY 1992 and FY 1997 (three test missiles have already been delivered). Production of these additional test missiles continues in FY 1992. The Small ICBM Program Office is protecting the option to begin full low-rate initial production in FY 1994, if procurement and MILCON funding becomes available.

Senator **STEVENS**. Thank you, Mr. Chairman.

Senator **INOUYE**. Senator Garn, can you yield 30 seconds to Senator Specter?

Senator **SPECTER**. Thank you, Mr. Chairman, and I thank my colleague from Utah.

I simply wanted to join in the welcoming of the Secretary and General McPeak and to say that I will be submitting some questions for the record, because I have to attend a meeting where I am ranking on Labor, Health, and Human Services.

Thank you, Senator Garn.

Thank you, Mr. Chairman.

Senator **INOUYE**. Senator Garn.

Senator **DECONCINI**. Mr. Chairman, would the Senator yield for the same purpose? I have to go to the Rules Committee to testify before the committee, and I thank the Senator.

Senator **INOUYE**. Without objection.

Senator **DECONCINI**. Thank you, Mr. Secretary.

Senator **GARN**. And I will be brief because I am ranking on Banking and it started 1 minute ago.

Gentlemen, I want you to understand where I am coming from, and I recognize that you are the messengers. But as I have sat this year listening to the presentations of each of the services, I am not sure that Congress is dealing with reality.

NEED FOR BUDGET BASED ON STRATEGIC NEEDS

For 5 years in a row we have cut the defense budget in real terms, a long time before we got to the latest budget crunch, while other programs continue to grow. This Senator is getting very tired of the Defense Department being made the scapegoat for the budget problems of this country, when you consider how we have reduced dramatically in terms of total budget and GNP, and I am afraid that we continue to make defense budget decisions based on the budget, rather than strategic and tactical needs. And I felt this way a long time before Desert Shield and Desert Storm occurred.

So now I see us going on with business as usual, same budget devised before Desert Shield and Desert Storm, and this Senator fails to understand that, particularly in light of, after 15 years of observing arms control negotiations, with the Soviets backing up once again, as they used to, changing to their tougher negotiators in Geneva, firing those who were much more open.

I saw a dramatic change in arms control over the years. I see them playing the old game of backing off decisions again that they had already agreed to, renegotiation. I see them modernizing not just three, but six ICBM's, while we are still arguing about continuing MX and maybe a Midgetman.

I know this is not a question; it is just an observation, that I do not understand what Congress is doing. It is time we got into the real world and recognize that we ought to be making defense decisions on the basis of the threat, not on where it fits in the budgets, in the 302(b) allocations, wherever that falls.

So to see your presentation today—and again, I emphasize, you are the messengers—after Desert Storm, I do not understand what we are doing, that we are going to be in a position where we could not complete a Desert Storm.

I hope there are no more Saddam Hussein's, but I guess that has always been a hope of everyone. But there will be. There will be some other damn fool that comes along in the future and wants to project his power.

So I want to make that very clear. This Senator does not like the direction. I think the administration ought to come back and revise, regardless of what Congress is willing to do, rather than going on with the same budget that has been worked out a long time before Desert Storm came along. Whether Congress accepts it or rejects it, I think the administration ought to be on the side of a realistic budget, based on what the strategic and tactical needs are, and not where it fits into those budget pigeonholes.

But let me follow along quickly Senator Stevens' concerns, and I will not take the time to have you answer these questions because I would like more detail. But just let me give them to you.

Along the line of the decision to stop the procurement of MX, I think this is obviously another one that is based on budget needs rather than strategic requirements. First, to what extent will the reliability in the Peacekeeper launch and flight capability be degraded? And I will supply you with these questions, so you do not need to write them down.

[The information follows:]

PEACEKEEPER RELIABILITY

The confidence level of the operational capability of the Peacekeeper will be somewhat lower with three versus seven launches per year. Seven flight tests per year will give an [deleted] percent confidence of detecting, a [deleted] percent degradation in reliability. With 3 launches per year there will be a [deleted] percent confidence level of detecting a [deleted] percent degradation in reliability.

IMPACT OF PEACEKEEPER SHUTDOWN

Senator GARN. Second, as the Peacekeeper production lines are shut down, what would be the cost impact on other programs, such as the Trident D–5 program, as overhead costs must be absorbed by these remaining programs undertaken by common manufacturers?

[The information follows:]

COST IMPACT

It is difficult to determine the precise increase in overhead cost to remaining ballistic missile and space programs undertaken by common manufacturers. The Peacekeeper ICBM production rate of 12 per year for a total buy of 114 is a low-level effort compared to more robust programs such as the Trident D–5. It is expected that a percentage of the overhead costs would be mitigated by managerial decisions internal to industry. The balance would be carried by continuing development of the Small ICBM and production of related aerospace systems such as the Trident D–5. The full cost impact would not be absorbed by other programs.

NEXT GENERATION OF MISSILES THREATENED

Senator GARN. Next, as we shut down the production lines for Peacekeeper, how would we avoid losing the expertise, tooling, and facilities that would transfer to the next generation of land-based missiles, presumably the small ICBM? I know that other strategic missile programs cannot take up the slack because they are also declining.

[The information follows:]

LOSS OF EXPERTISE, TOOLING AND FACILITIES

Due to the factors mentioned in the previous question, and the other missile procurement programs (e.g., Navy D–5's, Army Patriots), we do not believe a catastrophic loss of expertise, tooling, and facilities will occur.

Senator GARN. Along these same lines, what would be the added production cost to the small ICBM program if we must reconstitute our production capability?

[The information follows:]

ADDED REDUCTION COSTS FOR SMALL ICBM

The cost of reconstituting our ICBM production capability for procurement of Small ICBM's is very difficult to estimate because of the number of "what its" that must be taken into account. The events of the next few years, as far as we can predict, will go as follows. Funding for Peacekeeper production terminates in FY 1991. Delivery of the final Peacekeeper missile will occur in late FY 1994. The Air Force does not plan to fund additional Peacekeeper missile production. There is no Small ICBM production funding in the FYDP, but the Small ICBM RDT&E program supports procurement of 13 more test missiles between FY 1992 and FY 1997 (three test missiles have already been delivered). Production of the additional test missiles continues in FY 1992. The Small ICBM Program Office is protecting the option to begin low-rate initial production in FY 1994, vice FY 1995, if procurement and MILCON funding becomes available. The modest overlap between the final Peacekeepers and the Small ICBM test missiles provides some degree of protection against incurring the unknown cost of a total reconstitution. Beyond this, the missile procurement of other services (e.g., Navy D–5's, Army Patriots) will have to be relied on to provide employment for much of the national production capability. Due to these continuing activities, we do not believe that a full reconstitution will be necessary.

START NEGOTIATING POSTURE JEOPARDIZED

Senator GARN. And finally, by terminating production of Peacekeeper missiles, are we not undercutting our future START negotiating posture, as well as compromising our ability to extend the life expectancy of the Peacekeeper program should that become necessary?

I am not convinced that when the Soviets are backing up, when they are modernizing six ICBM's, and when we thought we would have a START agreement some time ago and they want to renegotiate agreements they have already made, and when they are transferring tanks to their navy—I do not know that tanks float, but tanks to their navy—in order to avoid having them included in CFE, I am not convinced this is the time to be taking away our strategic capability on the hope that the Soviets agree to a START treaty.

[The information follows:]

POSSIBLE DRAWBACKS TO TERMINATING THE PEACEKEEPER

The worth of the Peacekeeper program is based primarily on the military capability it provides, rather than on the extent to which it is perceived as a "bargaining chip" for future negotiations with the Soviets. Although the Peacekeeper production buy will cease in FY 1991, sufficient assets for deployment and testing will be available throughout the 15-year design life of the weapon system. Thus, Peacekeeper's unprecedented military effectiveness will continue to provide the capability to execute our national deterrent strategy during this period. In this regard, Peacekeeper will continue to influence our future negotiations with the Soviet Union. If the Peacekeeper remains in the active inventory past the 15-year design life, ground testing as well as historically accurate engineering estimates of reliability and accuracy will be used to determine confidence in the weapon system. Finally, if necessary, operational assets could be removed from the force structure to perform test flight operations.

Senator GARN. So if you would be willing to supply me with the answers to those questions as an illustration just on the MX of other concerns I have in our strategic area, I would appreciate it.

And I thank you, Mr. Chairman.

Secretary RICE. We will be happy to do that, Senator Garn.

Senator INOUYE. Thank you.

Senator Domenici.

Senator DOMENICI. Thank you very much, Mr. Chairman.

Let me join in welcoming you, Mr. Secretary, and you, General. I was late because of a conflict. I am delighted to be able to spend a bit of time with you.

READINESS

Let me first suggest that one of the unsung heroes of that conflict was our readiness. It was obvious as we watched it unfold that there are more accidents on our streets than there were in your skies full of airplanes. It was almost amazing to see the sorties and see pilots do them with absolute efficiency and accuracy.

I guess what I want to tell you is that one of the very expensive items in the budgets of the Defense Department, not only yours but all of them, comes under the rubric of readiness. Some of us in 1979 thought we understood it when we spoke of the hollow military and a hollow Air Force and a hollow Navy. What we were saying was that the services did not have enough money to be efficient.

But we did not really understand readiness until we watched the performance of our Armed Forces in the Persian Gulf, and there it was. At one time one of my children asked me, "What is all that about?" And I said, "It is practice, practice, practice, and practice again."

And I do not know anything about it. You have never told me that. I have never gone out and watched it. But it was obvious that all that money you asked us for for operations and maintenance was well worth it. I can imagine the boredom that must have been around for those members of the Air Force who had to practice, practice, and practice again.

I also gather that there is a very significant new capability to reduce this cost by simulation. I should not say "a very significant" reduction, but there is a way to reduce costs, over what it was 15 years ago, by using simulation. I gather we are doing a much better job of using science and technology in simulation that helps with this practice approach; is that correct?

USE OF SIMULATION

General McPEAK. Senator, I think there are some things you can do with simulation and some things you really cannot.

Senator DOMENICI. Right; but we are doing slightly more now than we have before, is that a fair statement?

General McPEAK. I think that is the right word. In other words, we are talking about a marginal change here. But the O&M kind of lessons, the readiness lessons, are very important here, Senator, and I thank you very much for bringing them up.

There are really kind of two levels of that, the human impact. One is at the theater level I think that the air effort was very well managed. When people who do not know anything about how you run air forces would come up to me and say, "Hey, this seems to be going pretty well," that illustrates an intuitive grasp that people had that this was being well managed at the theater level.

That was because we had one concept of operations, General Schwarzkopf's, and one architect for the air campaign, General Chuck Horner. All those 3,000 sorties a day were on a single tasking order that came out of General Horner's headquarters.

Always in the past we have fought several different air wars. We had a couple in the Air Force; we would have a bomber air war and a fighter air war. Then there was a Navy air war and a Marine air war and an allied air war, and so forth.

This time there was one air war, managed by one guy, and it made a heck of a difference. That lesson was learned by us in the decade of the 1980's, where you gave us sufficient O&M funding to where we could do large-scale air exercises.

The other level of confidence was in the cockpit, and at that level, at the point of contact, the critical issues are the flying hour program; for the Navy, steaming hours; for the Army, ground maneuver time. The simulation that is really important there is our ability to come back to the ground and look at something like what Senator Stevens raised earlier, the air combat maneuvering instrumented range [ACMI], which is a rather large replay capability on the ground of a large many on many type of engagement.

So the good O&M funding that you provided for us in the decade of the 1980's paid off at a number of different levels and in a number of different ways. But, in my judgment, the human factors were the most important ones in achieving the success we did, and those human factors can only be produced by the good O&M funding you provided.

O&M AND READINESS

Senator DOMENICI. Let me quickly suggest that, Mr. Secretary, as you look at your multiyear budget and we are now talking about whether these numbers, these caps, are adequate or not because of force structure reductions that might be inordinate based upon Desert Storm's retention and other fairness situations, I would hope that you would also make sure that you are adequately bvudgeting readiness and O&M in all of these years. It seems that the lesson we learned is, whatever the force structure, we have to fund O&M adequately or there is not any real reason to worry about how many forces we have or how technologically superior we are.

Secretary RICE. You are absolutely right, Senator. I mentioned briefly in my opening remarks that we are trying to pay special attention to that consideration throughout the program, but nonetheless it is an area that worries us some, and we are going to have to keep a close eye on it year to year as we go on through the program.

Senator DOMENICI. I am going to submit some questions with reference to my State in writing as to some of the bases and what is going on with some of the other notions for base changes and wings and other things.

BUDGET SUMMIT

But I would ask—and I want to change the subject to another issue—frankly, I would suggest to you and to our chairman, who is obviously raising the issue today about the effectiveness of the 1992 cap: First, just think where we might have been had we not had the budget summit. The suggestions were that the defense budget should have been reduced $80 to $100 billion more than we ended up with.

We agreed to the Senator Sam Nunn defense numbers in last year's budget agreement. There were some around saying we had to cut much, much more. It is amazing how a Desert Storm changes everyone's thinking.

Now, having said that, I think the tough problem for you all in addition to this temporary end-strength problem which results because of the war, is that we do not have discretionary spending caps for defense that are binding for 1994 and 1995. We only have them for 1992 and 1993.

I think the real area that we should be thinking of is the fact that you are assuming that you get those cap levels in the next 2 years. But they are not in the law.

Secretary RICE. Yes, sir.

Senator DOMENICI. And there are many around here waiting to take money from the defense account to put in domestic programs, and you cannot do that for the next 2 years. I think your planning requirements, which have permitted you to realize so much savings, are predicated upon having a real understanding of where you are for a number of years, and that that has been a very salutary part of this reduction.

Is that correct, Mr. Secretary?

Secretary RICE. Yes, sir; very much so. And a lot of what we have laid in this program is predicated upon an understanding that we can have at least that level of resources that are shown in there for 1995 and 1996, and that is really critical.

The program changes that would roll back into these early years would become much greater if the answer was even fewer resources were available out there in the mid-1990's.

Senator DOMENICI. Mr. Chairman, I will submit some specific questions and I thank you very much for the time.

Thank you very much.

Senator INOUYE. Thank you very much.

Before I call upon Senator Bumpers, I forgot to advise you, Mr. Secretary, that Senator Hollings wanted to be here this morning. But as you know, he is chairing the Subcommittee on State, Justice, Commerce of Appropriations, and so he has asked me to submit to you and General McPeak several questions. I hope you will respond to them.

Secretary RICE. We would be glad to, Mr. Chairman.

Senator INOUYE. Senator Bumpers.

Senator BUMPERS. Mr. Secretary, I really have not had an opportunity to look over this chart for your plans, but based on what I see about it I think it is, given the budget constraints, pretty well crafted and well designed. I like the weapons systems you are choosing and the quantities and how you hope to prepare for the late 1990's. I think it is pretty good.

Secretary RICE. Thank you, sir.

AMRAAM

Senator BUMPERS. Let me ask you first of all about the AMRAAM. How many are you asking for in the 1992 budget?

Secretary RICE. I do not have that quantity at my fingertips, Senator Bumpers. I would be happy to get it for you.

Senator BUMPERS. Fine. Do you know what your ultimate purchase is for this, how many you ultimately want in your inventory?

Secretary RICE. We have reduced the inventory objective, I know, substantially from what had earlier been planned, in keeping with the drawdown in the force structure that we are seeing. And again, I will be happy to get you that number for the record.

[The information follows:]

AMRAAM

The FY 1992 President's Budget includes 1,000 AMRAAM's for the Air Force. For procurement planning purposes the services have reduced their total program procurement objective from 24,320 to 15,539 (12,089 Air Force and 3,450 Navy).

Senator BUMPERS. Did we use any of those in Desert Storm? You do not have to answer that if you do not want to.

Secretary RICE. I do not believe we did, sir.

Senator BUMPERS. Now, that is a fire-and-forget missile, is it not?

Secretary RICE. Yes, sir.

Senator BUMPERS. It is a radar-homing? It locks in by radar?

Secretary RICE. It has its own radar seeker in the front end, so it gets a handoff from the radar in the aircraft and then it is able to track its own way to the other aircraft, whether that aircraft is emitting or not.

Senator BUMPERS. Through cloud cover?

Secretary RICE. It is radar; yes, sir.

Senator BUMPERS. Did we lose any F–117's in Desert Storm?

Secretary RICE. No, sir; not a scratch on any of them from Iraqi fire.

Senator BUMPERS. How many did we have there?

Secretary RICE. We had 42 deployed.

Senator BUMPERS. How many squadrons is that?

Secretary RICE. Most Air Force squadrons, fighter squadrons, are organized in 24 aircraft per squadron. So it would be a little less than——

Senator BUMPERS. So that was essentially two squadrons?

Secretary RICE. Actually, I think we deployed as two 18–PAA squadrons to start with and then we added the six additional that were all the additional aircraft that could be deployed.

AIRCRAFT PERFORMANCE

Senator BUMPERS. Did any other aircraft perform comparably? How about the F–18's and the F–16's?

Secretary RICE. I cannot give you—the F–18, of course, is a Navy aircraft and I cannot give you as clear a picture on those. I think all of our aircraft performed exceptionally well from a readiness and an operational point of view and a mission capability point of view.

We did lose some F–16's, we lost some F–15E's. We lost no aircraft in air-to-air combat. The score there was 35 to 0 when the war was over.

But I think it is important to point out that the F–117's night after night took on the hardest targets, the most heavily defended targets, went deep to the heart of the enemy's strategic operations and strategic activities and the parts that he was defending most assiduously, and did that night after night without, as I say, incurring a scratch.

So I would still single out the F–117 because it was given, in some sense, the hardest job to do. But other aircraft, we did not lose in combat, for example, an F–111.

Senator BUMPERS. Do they fly at any different altitudes than the other, for example the F–15E's?

General, perhaps you?

General McPEAK. In general, we flew the F–117 at whatever altitude was appropriate to penetrate enemy defenses. We did the same with the F–15E, from low to high, whatever is necessary to penetrate.

Senator, all of our aircraft performed marvelously well, but the F–117 is the last aircraft we would want to bring out. It really did perform spectacularly. It had zero losses. While we did not lose a F–111 in combat, we lost a F–111 over there.

Senator BUMPERS. Yes.

General McPEAK. We did not lose a F–117, and it took the toughest targets, the hardest targets. It went in by itself unprotected, unescorted. It was clearly the most efficient system we had and achieved the bulk of our strategic objectives. So it was the most important of the aircraft deployed there in my judgment.

Senator BUMPERS. General, we have been asking the other Chiefs—and I am sure that the Air Force plans to do it. But this subcommittee needs pretty detailed evaluations of all these systems. It will be an immeasurable help to us as we mark up the bill for 1992. We want you to give us your critical analysis.

Certainly we want to accommodate your request for 1992, but we also need that information with which to do that. And I am sure that will be forthcoming, Mr. Chairman.

Let me ask you also, Mr. Secretary, about, we have got this START Treaty coming and we have apparently now decided that we are going to stop with 18 Trident subs. And assuming that we put 8 warheads on most missiles on those subs, you are looking at roughly 3500 warheads there, and I am not sure what the mix is going to wind up.

I am not sure, frankly, what the limitations on warheads is going to be when this thing is over. I am on the Arms Control Observer Group in the Senate and we go to Geneva periodically, and the thing, it is like shifting sand. It is very difficult. One day you think you have a fix on what we have agreed to and the Soviets, for what I think are fairly obvious reasons, are having second thoughts about all of those concessions they were originally making and they have been backing away from some of them.

So I must confess I do not know where we are on the START Treaty. But one of the things that we must do and that the Chiefs have to do is to sit down and figure out what that mix is going to be once that figure is determined. And obviously, for this subcommittee to do its work we have to know what that mix is.

I mean, we may not agree with the mix. In all probability we will, but we certainly have to know it. We cannot go buying B–2 bombers and maybe upgrading some of the B–52H's and keeping them in inventory if that is not what we need to do under the START Treaty.

But that is a very complicated question and I am sure you recognize that.

MIX OF FORCES

Secretary RICE. Yes indeed, Senator. I can talk a little if you want me to now on the mix of forces.

Senator BUMPERS. I wish you would.

Secretary **Rice**. We have, of course, put the outyears of the force structure together under the assumption that a START Treaty would be successfully concluded with the limit at the 6,000 level that you know about and with the kinds of counting rules that had been at least, at least it seemed to us, had been agreed in the negotiations by the time the budget program was finalized by the Secretary last fall.

Eighteen Trident boats, you are correct about that, I believe is what is provided for there. We plan to retain, of course, the 50 Peacekeeper missiles. We are phasing out Minuteman II. We plan to maintain the Minuteman III's. And the question of how many warheads will continue on the Minuteman III's will be worked out depending on the downloading rules and agreements that are made in START.

Senator **Bumpers**. If you choose to download the Minuteman III, I think that is probably one way we can get a better mix, just based on what we know right now. If you choose to do that, I would not squawk.

Secretary **Rice**. Well, we have clearly held open in the Air Force program the opportunity to download the Minuteman III, but we expect at this point that an arrangement to be able to do that will be part of the START Treaty, but I do not think that point is settled yet.

So there is the flexibility to fit under the START limits. In the ICBM force it is in the question of what we do with the numbers of warheads on the Minuteman III's. Then the bomber force is provided for, it is 84 PAA—I think it is a somewhat larger number that counts under START, the so-called TAI or total aircraft inventory number—of B–52H's will be the standoff cruise missile-carrying force; and the B–1B and the 75 B–2's will be the penetrating bomber force. All of that fits under the 6,000 limit, with the only question being what we need to do about Minuteman III warheads to come within the 4900 portion, or however close we want to get to that, of the 6,000 limit that is for missile warheads.

So that is the force structure that is there, and we have tried to lay it in anticipating as best we can what might be the focus and the levels down the road for START II. We obviously do not know the answers to that, but one of the reasons we have hesitated, if you will, on the commitment to the Peacekeeper rail garrison procurement and deployment is because the highly MIRV'ed land-based systems might well become an even more intense focus of START II, and we have the opportunity to rephase or continue the phasing of the bomber force, again based on what number the 6,000 comes down to.

Those options are, I think, held open in an appropriate way that lets us make whatever choices would best fit in the START II environment.

REENGINING B–52'S

Senator **Bumpers**. Mr. Secretary, I assume that you have seen, and General, you have too, the proposal that Boeing gave us last year, which I found pretty dramatic, on reengining the B–52G's and even—I mean, the H's, and even the G's if you wanted to do it. Have you seen that?

General McPEAK. Yes, sir.

Senator BUMPERS. Last year I got an amendment put on this bill requesting the Air Force to give us a study on that. We have not yet received that, have we, Mr. Chairman, or do you know? I have not seen it.

Secretary RICE. I do not believe we have provided it yet, Senator Bumpers.

Senator BUMPERS. You know, I am not trying to, in light of the euphoria over technology and weaponry, I am certainly not trying to drag my feet and unnecessarily keep B–52's in the inventory. But after all, they did perform workhorse duties in this war, too.

That Boeing study was very dramatic. Everything about the B–52's are new except the airframe, and the fact that that bomber could be used into possibly the year 2035 at a minimal cost looked like a real bargain to me. The only reservation I had about it was, if the mix is only going to allow us a limited number of bombers, for example, then, of course, the B–2 and the B–1 probably, if we can get the B–1 working, ought to be the mix, and I would strongly urge you to go ahead.

You know, I opposed the B–1, but they are there and I certainly think spending a billion dollars to protect a $28 billion investment is a good one, based on the studies that you and I have both been seeing. All I know about it is what I have read in the newspaper, but $1 billion to protect that investment would certainly be money well spent.

But on the B–52's, as I say, it just seems to me foolish to retire those airplanes when for $30 million you can get another 30-year life out of them.

Secretary RICE. There is the problem, Senator Bumpers, about how many of the heavy bombers we will be allowed to maintain under the START limits. The reengining I think looked most attractive for the B–52G's. The H's do at least have—it is a first generation, but they have a fan engine on them.

And we are, of course, under this 6-year program, mostly due to START constraints, but partly also due to budget limits, phasing out most of the B–52G's. So we certainly will do the review that you have asked for and provide it to the committee.

Senator BUMPERS. There again, we cannot make a sensible decision on that, not only until we get your comments on that, but also until we know what the mix is going to be under the START Treaty.

Secretary RICE. Yes, sir. Well, as I say, the mix under the START Treaty, assuming the best information we have today on what the limits are going to be, is going to be the 75 B–2's, the 90-odd B–1B's, and a like number of B–52H's in the cruise missile-carrier role. We will retain the 33 remaining B–52G's that are dedicated to the conventional role, and we expect that the START Treaty will allow them separately. The first three will be counted under the START Treaty.

That allows us all the flexibility, if we go beyond START I into START II to a significantly reduced number, then to transition the B–52H into a conventional specialized role, with the B–1 as a cruise missile carrier and the B–2 as the penetrating element down the road. But I think realistically, before START I would get adequately implemented, START II would be negotiated and we would be into actually implementing START II, we are certainly looking at the early part of the next century before we would be considering those kind of changes in force structure.

C–17'S

Senator BUMPERS. One final question, Mr. Chairman. General, do you wish you had had more C–17's in this war?

General McPEAK. Yes, sir; we had zero, so anything above that would have been great.

Senator BUMPERS. I say that because it looks to me like you are cheating the C–17 in your budget.

General McPEAK. No; I think the C–17 is adequately funded, Senator. We do have some concerns about it in the area of producibility and we want to make sure we get on with the program—get it flying and so forth and make the program milestones.

But clearly the requirement for a C–17-like capability is as strong as ever, even stronger, based on our Desert Storm experience. We had to take an awful lot—you see, Saudi Arabia has probably got the best developed airfield and seaport complex that we could ever expect to have in a contingency situation. So we were able to operate wide-body jets, principally the C–5, in a lot of places around the peninsula.

Even so, because of its maneuverability constraints and throughput constraints, we could have taken, direct delivered an awful lot of more cargo to forward locations and really increased the speed of our ground deployments in Desert Shield with the C–17. So we would have been delighted to have it on hand.

Senator BUMPERS. How many C–17's do you ultimately want to buy?

General McPEAK. 120, sir.

Senator BUMPERS. 120?

General McPEAK. Yes, sir.

Senator BUMPERS. You have 100 C–5's?

General McPEAK. Yes, sir; on that order. When I said 120, I guess that is our total aircraft buy; there are 102 primary assigned aircraft, 10 backup attrition inventory and 8 trainers.

Senator BUMPERS. What is the current cost on the C–17? Anybody, from wherever you are sitting?

General McPEAK. Just a minute. I have got that.

Secretary RICE. We can look up the current program cost for you.

[The information follows:]

C–17

Current program costs, based on the FY 1992 President's Budget, are $35.38B for the total program (120 aircraft). The flyaway cost is $210M (then-year dollars). The total program unit cost per aircraft is $294M.

Senator BUMPERS. Now, are we still looking at $800 million for the B–2, Mr. Secretary?

Secretary RICE. Yes, sir; unit cost for 75 aircraft will come out to a little over $800 million.

Senator BUMPERS. You know, I have been a strong proponent of the B–2 and the C–17, but those cost figures are really beginning to stagger me.

Secretary RICE. Senator Bumpers, let me try to do a little bit to help you on the B–2 costs. We understand, of course, that that is a committee concern; and I can assure you we share the concern.

I went back and got the costs dug out of the F–117 and then had it simply adjusted, those costs, adjusted for inflation to fiscal year 1992 dollars, the same dollars we are looking at in that budget. They cost us $144 million apiece.

Senator BUMPERS. In inflated dollars?

Secretary RICE. In the same dollars you are looking at in the 1992 budget.

If you put the B–2 in those same dollars—and the total costs you are looking at are higher because it goes through outyears, so there is more inflation in them. But if you do it on an apples-to-apples basis, the B–2 will cost us five to six times as much as an F–117. It will fly five to six times as far, coincidentally, and carry up to 10 times the payload. So we get about 10 times the ton-miles. If you want to think of it in terms that we are kind of used to using in airlift, we get about 10 times the ton-miles per dollar from the B–2 as we got from the F–117.

The combination of stealth, which is costly on a per unit aircraft basis, there is no doubt about that, with the tremendous payload range of that aircraft we think returns awfully good value, even for those high dollars.

We also included a chart in your package that shows that, in terms of the percentage of the defense budget that needs to be devoted to the B–2, even with these reducing budgets the percentages are lower than they have been for any of our other strategic bomber purchases in the past, whether they have been good years or bad years for the defense budget.

So we think on value return grounds that cost is certainly worth it.

B–2 CAPABILITY

General MCPEAK. Senator, I would like to comment on the question, if you do not mind. I think of the B–2 as having the potential to make every other air force obsolete overnight once that capability is fielded. The reason is it has the potential of restoring the element of surprise to the air engagement.

When one thinks about it, surprise conveys with it almost overwhelming operational advantages. But in the case of the B–2, there are really two aspects, because in the nuclear role it is being purchased as a deterrent rather than an employment capability. The issue there is not surprise; it is advertising the fact that we expect the B–2 to be able to penetrate the best known ground defenses as far into the future as we can make a projection on that.

So there is really no surprise element there. It sits on the ground as an unsurprising deterrent capability.

The surprise comes in its use as a conventional platform to go long distance, really reach any spot on the surface of the Earth in hours, and to be able to enter the engagement arena with surprise. That, as I say, has the potential to make every other air force and certain other classes of equipment obsolete overnight.

Now, is it expensive? Yes; it is. As the Secretary showed you, so is every bomber program that DOD has ever purchased, and, in fact, the B–2 as a fraction of total DOD TOA only reaches 2 percent in its most expensive year, which happens to be fiscal year 1992.

So we feel it is affordable and that the value that it brings with it in both the nuclear and conventional arenas is absolutely staggering. It is our No. 1 Air Force requirement as a consequence.

Senator **Bumpers**. General, I appreciate your comments because I have, I guess, at least two and maybe three concerns about it. No. 1 is obviously the cost. You know, we are operating—and nobody talks about it; we just continue to ignore this tremendous budget deficit we are trying to cope with around here, and we all are having to rein in ourselves to some extent on things that we would like to have.

No. 2, I see that B–1 out there now, which has been operational for several years, grounded a good portion of the time, and according to current studies it is going to cost at least $1 billion, and probably more, to make it do the things that we were told it was going to do when we were buying it in the first place.

And third, when it comes to technology I assume the Soviets are just like the United States and Japan and everybody else. Occasionally you have breakthroughs in technology that you did not foresee. As you correctly point out, right now as far as we can see that is probably going to be a penetrating bomber for some time to come, and maybe it will carry that element of surprise. I hope it does.

The other thing, of course, back to the operational capabilities of the plane, I hope that we will have tests, sufficient tests that you can certify to this committee that that plane is going to do all the things that it is being billed as capable of doing.

You know, on this side of the table we have to look at two things. No. 1, we want you to have the best of everything, and that paid off in Desert Storm. But we also have to live with an additional thing, and you do, too. I mean, your budget reflects it here today. We also have to live within the realities of what the budget can stand.

So as I say, I have always been a strong supporter of the B–2 and the C–17. And the C–17, according to the cost figures I have just been handed by staff here, really are not as high as I thought they were going to be. If we are looking at 120, we are possibly looking at maybe $130 million to $140 million each. Does that sound right?

General **McPeak**. That is not program cost. That may be unit fly-away cost.

Secretary **Rice**. I think that is fly-away cost, Senator.

Senator **Bumpers**. OK.

Secretary **Rice**. By the time you put the development costs and everything else in, I think you are looking at close to $250 million a copy for 120, by the time you put total program costs in, the same kind of numbers you were using for the B–2 before.

Senator **Bumpers**. Mr. Chairman, I thank you.

Mr. Secretary and General, thank you.

Secretary **Rice**. Thank you, Senator.

Senator **Inouye**. Thank you.

Senator Leahy.

Senator LEAHY. Some of these questions have already been asked, Mr. Chairman. I just want to make sure I understand a couple of things.

FIRST FLIGHT OF C-17

Senator Bumpers referred to the C-17. As I understand, Mr. Secretary, you have asked for $2 billion to buy six C-17's in fiscal year 1992. Have we had the first flight yet for the C-17?

Secretary RICE. The first flight will be this summer, Senator.

Senator LEAHY. Is it realistic to be talking about $2 billion for six C-17's in fiscal year 1992 with that kind of a schedule?

Secretary RICE. Yes, sir; we think it is. The airplane will have been at low-rate production now and fiscal year 1992 is the right time to turn it up. That money will not actually be applied to contract until quite some time after the first flight.

AIRCRAFT TEST PROGRAMS

Senator LEAHY. Mr. Secretary, the ATF and the B-2 test programs, both have had approximately 150 hours of test flights; is that correct?

Secretary RICE. Very different situations, Senator Leahy. The ATF, of course, is in its prototype, what we call demonstration/validation phase, prior to a selection of one of the two competing contractor teams and prior to a commitment to full-scale development.

The B-2 is emerging from its full-scale development cycle and into its development and operational test program. So while the number of flying hours, I think, turn out to be roughly comparable, the two programs are at very different stages of their life cycle.

In the ATF case we have two prototypes flying and we have to make a choice between those two competing teams in the next few months.

Senator LEAHY. It is not a case of one following the fly-before-buy and the other not?

Secretary RICE. It is a case of that very definitely, and the ATF program has been laid out with—I usually describe it as having embodied every Packard Commission recommendation one can find in the report, and we are pursuing a very strong fly-before-buy approach on the ATF. It is something you can do with tactical fighter planes, though it is expensive.

That demonstration/validation phase has been a multibillion dollar effort, but one well worth it to have flying prototypes that we know meet the aerodynamic requirements, we have seen them doing that in action, and we know also can meet the low observables requirements. We have also had flying test beds for the avionics development. All those things—new engine development actually being flown in those flying prototypes. So all that is very positive.

It is simply not financially or otherwise feasible to prototype a strategic bomber program, for good or for ill. We would all like to be able to do every program that way. But what we have done is a very careful, very extended development program for the B-2, which has had more testing of all the different kinds you can do with modern computer capabilities, and models and all of those things that you can do short of flying, the B–2 has had more of that kind of testing than any program in history by a long ways.

It is now flying. I did not get a chance to say so in response to Senator Bumpers' question, but the committees will have available a report from a Defense Science Board Committee, I think the Defense Science Board review that the Congress called for, on the early low observable testing that has been accomplished. So you will have an independent assessment and confirmation of the kind of things that we have been telling you about the very positive prospects the program is showing for achieving its low observability.

Senator LEAHY. Thank you.

First, Dr. Rice, let me say, you know of my opposition to the B–2. The test program looks like a different standard, but I appreciate your answer.

General McPeak, you and I talked about the B–1 and the B–2 in my office, and I appreciate the time you took to meet with me. I thought our discussion was helpful and I look forward to the material that you are sending up.

I apologize if this next question has already been asked. I have been in two different meetings this morning. I understand that the House Government Operations heard testimony that fixes for the B–1B engines and radar system would cost $1 billion.

B–1B ENGINES AND RADAR SYSTEM

Does the Air Force feel this estimate is accurate?

Secretary RICE. I cannot give you a complete answer to that at this point, Senator Leahy. We do not believe it is fully accurate, but let me try to give you at least a short effort here to put that in some context.

There are a number of things rolled in together to add up to that total amount. The most speculative estimate of all of them is the large number associated with what might have to be done with the engines, and that is quite speculative at this point.

As you know, we have had a problem with the front fan blade. The article covering that hearing in this morning's paper said that, in two different places in the article, that two B–1's had crashed as a result of that engine problem last year, and that, of course, is not true. We lost two engines; we did not lose two airplanes. So there have not been crashes of the B–1 as a result of that problem.

The B–1 is continuing to go through the kind of maturing cycle that all new systems do. This one is doing it under a microscope that calls attention to it in ways that, thank the Lord, other programs do not have to live under.

The icing problem, so-called, was another thing that was being referred to there. Normally what we do is plan to fly airplanes around those conditions. There is a desire to be able to operate more in such atmospheric conditions with the B–1 if possible. We are working on a way to try to give it an in-flight de-icing capability.

Senator LEAHY. Does the B–52 have de-icing capability?

General MCPEAK. Yes, sir.

Senator LEAHY. And what about the B–1?

B–1 ICING

General **McPeak**. Can I talk to that just a second? We have a special problem with icing in a B–1, which is, I fear, poorly understood. What happened is that the engine intake as originally designed was just a straight-through intake, a straight pipe.

Senator **Leahy**. You are talking about the B–1 now?

General **McPeak**. The B–1.

Later in the program it was decided to put some guide vanes in that intake for reasons having to do with observability factors. As you know, the B–1 has a very much reduced radar signature over, say, something like the B–52. So we put some guide vanes down in that intake that were not originally designed to go in there.

Now, those guide vanes will collect ice. Small bits of ice will build up on the vanes, break off, and be ingested by the engine. The engine eats that ice pretty well, but over time it can cause us some blade imbalance. We have to go in there with an emery cloth or that kind of thing and reshape those vanes, and we have to remove the engine often to do that.

The way you would run into a problem like that would be taxiing over snow or slush, because the intakes are on the bottom of the aircraft and so it tends to suck moisture up off the ground in the right conditions, in the right temperature range. We can pretty well handle that problem by sweeping off the taxiways.

Obviously, it is not a problem for a nuclear alert or anything like that. It is not an operational problem. It is a problem when you want to train with the aircraft.

In the air, in certain temperature ranges if you fly into visible moisture, clouds, what you can do to solve the problem is sweep the wings back a little bit and increase the speed, and the dynamic heating of the air is sufficient that no ice will form on those inlet guide vanes.

Where we run into a problem is where we cannot speed up, like in air refueling, where you have to slow down to air refuel, and we like to refuel in the range where we often run into visible moisture, or if you want to go back to home base and do touch-and-go's in a traffic pattern, where you are slowed down at low altitude and maybe popping in and out of clouds under ground radar control or something like that.

The operational work-arounds are relatively straightforward. We find clear air to refuel in or we go find another nearby base that does not have clouds at traffic pattern altitude and we do our touch-and-go's there.

We tried, when we originally put these guide vanes in the inlet, to put a heating system on them. It turned out it took too much drain of electricity to do that, so that did not work very well.

We have, as the Secretary mentioned, ongoing now some relatively straightforward fixes that we think will work the problem over time. So what we have here is a relatively insignificant operational problem that we are working around pretty easily, that has snowballed, to coin a phrase——

Senator **Leahy**. No pun intended.

General **McPeak**. No pun intended—into a media cause celebre. Quite frankly, I sometimes think that people believe that we wish to issue our own pilots the worst possible equipment. This is a hell of a bomber. It is the world's best bomber. The operational impact of this problem is zero. It will penetrate to the targets it needs to penetrate to and so forth.

Are we having to do engineering fixes to it as it matures? Yes; just like every other airplane. So I think we really need to put that kind of problem in context.

I think the real, really big budget problem may be how we fix the ALQ–161. The engine icing is a relatively straightforward problem.

Secretary RICE. That was the electronics part you were also referring to, and we have that program in development. We are committed to completing development on a zero concurrency basis. There is no commitment to production until we have finished development, done the testing, had our own Air Force reviews and independent reviews of the results of that, and brought it back to the committees before any commitment to production is made.

That is still the plan for that system. It will take us until some time this summer to get that testing and evaluation done, and when we have we will bring it back, just as we had committed to all four other committees, since all of them are interested in the subject, hopefully with a solution for how to proceed with production.

B–1 ALERT STATUS

Senator LEAHY. Just one very brief one. It could probably be answered quickly. When do they go back on alert? When will the B–1's go back on alert?

Secretary RICE. They have never gone off alert, sir. They were grounded for a while for training flying, but they stood nuclear alert all through that time and if the klaxon had gone off they would have gone and flown.

It was purely a peacetime flying safety consideration, and the engines have been given an interim fix, a stronger retaining ring. Those that have had the fix, they have been back flying.

Senator LEAHY. So today?

Secretary RICE. They are flying today.

Senator LEAHY. Today whatever number that you would have on alert otherwise unrestrained are on alert?

General MCPEAK. We increased the number of them on alert during Desert Storm because we took a portion of the B–52 force off to do conventional tasks. So it never came off alert. In fact, it increased its workload as far as the SIOP goes.

Secretary RICE. As of near the end of February, 317 of the 450 engines in the fleet had had the interim fix put in them and 68 aircraft had been modified and were back flying. We had flown 60 sorties during a week in mid-February. We can update those numbers for you if you would like.

[The information follows:]

INTERIM FIX ON B–1B ENGINES

As of 18 March 1991, 414 of 452 B–1B engines have been modified with the new engine fan retaining ring. A total of 94 aircraft contain these modified engines and

the 3 remaining aircraft are in the process of being modified. We expect all aircraft will be completed by 25 March 1991.

Senator LEAHY. Thank you.

Thank you, Mr. Chairman.

Senator INOUYE. Thank you.

Mr. Secretary, I would like to announce at this time that the staff of this subcommittee has been instructed to plan a work trip, a committee work trip, to Palmdale to visit the B–2 production facility.

Secretary RICE. Perfect, Mr. Chairman.

General MCPEAK. Good.

Senator INOUYE. Obviously, the B–2 will be a matter of major concern to us, and I am hoping that, if at all possible, every member of this subcommittee will go. Unfortunately, this is the largest item, and yet not even a majority of this committee has ever been to Palmdale. I will do my very best to urge every member, for or against the B–2, to go on this trip and see for themselves what we are paying for. I think it would make a dramatic difference in the outcome of the decisionmaking process here.

Secretary RICE. Thank you, Mr. Chairman. We appreciate your efforts in that regard. It is, in fact, an impressive experience to go visit the aircraft. While I know the committee's time is very limited, I would hope that you might at least look at the possibility of looking in on the advanced tactical fighter program.

If you could have time to make a stop at Edwards as well as Palmdale—they are quite close together—you could see the production plant for the B–2 and visit the testing, the flight test teams for both the B–2 and the advanced tactical fighter.

ADVANCED TACTICAL FIGHTER FULL-SCALE DEVELOPMENT

Senator INOUYE. We expect to do that. Now that you brought it up, as you know, last year the Defense Authorization Act prohibited the full-scale development of the ATF in fiscal year 1991, and we followed that, the appropriating act followed that, by lifting this prohibition.

A few days ago, Secretary Atwood indicated that DOD was prepared to begin full-scale development of the ATF this year. Is the Air Force prepared to execute that decision in this fiscal year?

Secretary RICE. We expect to be prepared and it is our current plan to proceed into full-scale development in the last quarter of this fiscal year; yes, sir. We are in the source selection process now. We have to complete that. We have to present the results for a Defense Acquisition Board milestone II review, and of course have to successfully pass that milestone gate to get the DOD approval to proceed into full-scale development. It is our plan to do that.

Senator INOUYE. I am glad to hear that, and I think that is added incentive for us to visit Edwards.

General McPeak, in the presentation today there was this matter of a new change in the tactical air wings. I think the word "composite" was used. Can you explain the rationale for this move? Is it because of operational effectiveness or cost savings?

COMPOSITE TACTICAL AIR WINGS

General **McPeak**. It is both, Senator. First of all, as our manpower and dollars are coming down we must find ways to operate more efficiently, and I am convinced that with composite structures we will be able to achieve operating efficiencies. But the larger problem is increased effectiveness in combat.

I would not wish to make more of this initiative than we should. In other words, we do not, the Secretary and I do not, intend to go out to every Air Force base and shake everything up and restructure it. What we would rather do is look at each base and ask ourselves, What is the mission that we intend to perform with that organization? And if it requires that we stay in the present configuration, as it will in very many cases, then there is nothing to be gained by changing.

Senator **Inouye**. So it is not an across-the-board decision?

General **McPeak**. No, sir. For instance, we find, though, quite often that we operate in a composite way. For instance, if you look at what we did at Incirlik, the base that we operated out of in Turkey just recently into Desert Storm, we had there a variety of capabilities. We had F–15's, we had F–111's, tankers, F–16's, and so forth, the full panoply of aerospace capabilities.

It was operated there in one composite wing under the command of one officer, and it operated beautifully and with minimum direction. In other words, Gen. Chuck Horner down in Riyadh could send mission-type orders to that organization and allow them to do the necessary planning and munitions selection, fusing, all those kind of things that we must specify in great detail for any other kind of arrangement.

By that I mean if we separate our capabilities by base, so that we have all of the F–15's at one base, all the F–16's at another, all the F–111's at another, et cetera, as we are normally configured in peacetime, then we have to go to each of those when we want to put together an air package that has cross-cutting capabilities, we have to go to each base and task it individually to join up at a certain location, at a certain time, use certain IFF squawks, be armed in a certain way, meet the tankers on a certain frequency at a certain time at a point in the sky, and so forth.

All of that detailed tasking can be much reduced if you create a composite capability on the ground and simply have it plan and execute the raid more or less under minimum supervision, as I say, mission-type orders.

So it is both to achieve the operational flexibility and increase efficiency that we plan to look around at our operation worldwide and say, where should we create composite structures? In some cases we have already created composite bases. Kadena in Okinawa is an excellent example. There we have a wing of F–15's, a wing of tankers, a squadron of tanker-modified C–130's, a squadron from Tactical Air Command with AWACS, helicopters. Until quite recently we had a squadron of RF–4C's, we had SR–71's operating out of there, and so forth.

Now, what we have is essentially a large composite base, but it is not under unified direction. It is not all under the command of one man. As a consequence, we have a proliferation of headquarters at Kadena, and we can meld all that together and streamline it and eliminate a lot of overlapping and duplication in that process.

So what we really need to do is not a kind of a wholesale reorganization and restructuring, but rather a case-by-case approach, look at our operations, see what makes sense to locate there, and create a streamlined command and control structure for it. That is all wrapped up under this rubric of a composite wing approach.

Senator INOUYE. So this concept has already been tested in combat in Desert Storm?

General MCPEAK. Yes, sir; with the provisional organization that we had at Incirlik.

We intend to do sort of proof of concept testing in this budget, in the President's budget, 1992 budget, at two locations. At Mountain Home, ID, we will put together what the Secretary—under the global reach—global power kind of approach, we want to put together a wing that can reach out and touch someone.

That will be a wing that has F–15E's for precision-guided munitions, long-range interdiction, F–15C's for air superiority, F–16's for multirole capability, tankers so that this package can go a long distance, AWACS so that it has eyes in the sky, an air control environment, and some kind of a connection to the B–52G. Probably cannot put B–52G's at Mountain Home, but we may have some kind of a relationship to a B–52G squadron.

This is a global reach—global power capability. It can go anywhere on the Earth in hours and make a difference.

At Pope Air Force Base we intend to create a composite wing that will have a variety of aircraft: F–16's, A–10's, OA–10's, and perhaps some C–130's, missionized to support the 82d Airborne Division, with the idea that it supports them in peacetime, gets to know them, creates a cohort organization that is familiar with each, and achieves the combat efficiencies that come from people who know each other fighting together in wartime the way they train in peacetime.

So those are two different proof of concept demonstrations that we will do in fiscal year 1992, and they are all aimed at showing that we can break down these old partitions that we have kind of artificially created in the Air Force that kept air power capabilities separate.

We really are here taking kind of a page out of the Navy book. The Navy organizes the carrier deck with a variety of aircraft—fighters, attack aircraft, reconnaissance, and so forth—under one guy's command. We are going to do something of the same kind, and I believe it has great potential to increase our operating effectiveness as well as streamline our operations for greater efficiency.

COMPOSITE WING SUPPLY AND MAINTENANCE

Senator INOUYE. Do you anticipate any problems in supply and management and maintenance?

General MCPEAK. Yes; but we have problems now. I mean, it is not a problem-free world as far as supply and management goes. I feel that the system will succeed with our present level of supply and logistics support for the systems we intend to combine in composite structures.

However, it will be much easier over the years as we increase the reliability and maintainability of the systems we have. To give you an example, the F–16C radar is very reliable. It is in the three digits mean time between failure, the first radar we have ever had in a fighter that will go 100 hours plus between visits to the shop. The shop radar guys are kind of the Maytag repairmen of the radar business.

We did that by putting a lot of emphasis on reliability and maintainability in our equipment. When we achieve those kinds of numbers, then we can sharply downsize the intermediate level of maintenance on each of our wings and go to more a two-level system of maintenance, where we do on-aircraft maintenance at the operational base and if something fails we return it to the depot to be fixed. We do not try to fix it in back shops, in the extensive back shops that exist in many of our bases today.

So part and parcel with the creation of composite structures is to try to scale back and move toward two levels of maintenance, which we also are quite convinced will markedly reduce the cost of our operation.

Senator INOUYE. Mr. Secretary, I have sat through many hearings during which we discussed the B–1 with you, your predecessors and such. I must say that today's explanation of the B–1 problem, the icing problem for example, has been the best that I have heard yet. I am going to urge all of my colleagues on this committee to study that very carefully.

Can you give me the same treatment for the C–17?

Secretary RICE. For the C–17?

C–17

Senator INOUYE. Tell me what the problems are.

Secretary RICE. I would be happy to try to do that, Mr. Chairman.

Senator INOUYE. Give it the B–1 treatment.

Secretary RICE. The C–17 program is making very steady and very good progress technically. I think everyone who has gone to review it would make that statement about the experience of about the last 18 months.

As you remember, some time ago there were some problems with two of the big software jobs that were involved. The contractors, subcontractors working on them were changed out. Those and other parts of the program have made very steady progress since the schedules were reset at the Defense Acquisition Board review in the fall of 1989.

The problem that we have has been a contractor that has had, quite frankly, difficulty keeping its work force and, therefore, its related costs under the right levels of control. The contractor had built up a larger work force and we believe also a higher overhead structure than was appropriate, got that work force built up too early given where the program was actually, given how the program was actually coming along and given the levels of production funding that we were prepared to provide.

He has had to bring that work force back down, even though he is in the early phases, when you would normally be seeing the work force growing. He has had to get his overhead rate down.

What we have been struggling with and working with the contractor is trying to get that cost structure down to where we think is an appropriate level for the production, the very low production rate that is supported at this point.

The uncertainty in the cost of the program has to do with how far down he will get it, because where it comes down to will then be the base that will be used for extrapolating the costs of the remaining production articles that have to be done.

The contractor has reorganized his operation out there a couple of times and changed the top management, I believe about 1½ years ago, and since that time there has been progress both on the cost structure and especially on the technical side. There is still a ways to go.

We have just completed negotiations on production lot 3, with what we think is a quite satisfactory outcome. That is being reviewed now within the Department of Defense levels. Hopefully, we will be able to proceed soon with that incremental production lot. First flight is expected to occur this summer.

So the program has had its growing pains, I would have to say to a level that none of us can be comfortable about or satisfied about, and we and the contractor together are trying to manage it through those problems, and we think it is on a track to come through them in good order.

We certainly need to see that first flight later this year, and we expect to see it, and we have seen significant progress in the contractor getting his overhead rate down. It has come down substantially in the latest data that we have seen, and his work force size. We have to keep working with him to see a continuation of that progress, and we expect we will get it.

Senator INOUYE. So you are confident that these problems can be addressed and resolved in a timely manner?

Secretary RICE. I believe they can and are being resolved, Mr. Chairman. As I say that, I recognize there is still some remaining uncertainty. We hope we have provided for it. We tried to provide for it in the budget submission that you have.

There is still some remaining uncertainty about the production costs, because inevitably it is going to depend on how large a work force and overhead structure the contractor is carrying through that work. We are working with him to get that down as far as it can possibly be brought down, and we are seeing substantial progress on that path, but we have not gotten all the way to where we think it needs to go yet.

Senator INOUYE. General, are you satisfied with this progress?

General MCPEAK. I am satisfied with my Secretary's answer. [Laughter.]

Senator INOUYE. Gentlemen, as you know, the Armed Services Committee was very critical of your MILSTAR program, and I will be submitting questions relating to that to see how well you have addressed those concerns and criticisms as we go into fiscal year 1992.

AIR FORCE MATERIEL COMMAND

I would like to know something about your decision to integrate the Air Force Systems Command and the Air Force Logistics Command into a new command, the Materiel Command. What is the reason for this?

Secretary RICE. The principal reason behind it, Mr. Chairman, is a desire to create a seamless responsibility from cradle to grave for all of our systems, so that single organizations, single points of responsibility and accountability will be responsible for a system no matter where it is in its life cycle.

By doing that, we will not only, we believe, get a more effective and more efficient management of our acquisition process all across the life cycle of the system, but we also will provide our using commands, who are, after all, the customers for this process, something closer to what you might think of as one-stop shopping, as a place where they go when they have a concern about a system or have a suggestion about an upgrade that ought to be incorporated in a system or have a suggestion about a new development that ought to be thought about in connection with a subsystem or some other part of the systems that may already be fielded.

In addition to that, we have some cost savings and efficiency objectives in mind here, too. We will certainly be able to achieve some efficiencies by combining the headquarters of the two commands. Some of the headquarters staff functions will not have to be replicated with a single command, as they are today with two commands.

We also hope down the road, though it was not a purpose of this, not an expectation, not a purpose of this decision, to achieve further personnel reductions at the operating levels within these commands beyond those levels that were already laid into the streamlining initiatives that both commands had taken prior to this move.

Nonetheless, we certainly hope that we will be able to achieve some further efficiencies as we get more deeply into the integration, the knitting together of the capabilities of the two commands.

The one other thing I would mention is that we expect that this approach will allow us to make better use of our laboratory structure over a period of time. We have a separate and parallel initiative underway to consolidate the Air Force laboratories into four major labs that we will attempt to operate in a way that is analogous to and competitive with the way the best private labs operate, the national labs—Sandia and Livermore and those kind of places—or the labs at MIT and so on.

We want to be able to bring those laboratories to bear on all across the life cycle of the weapons system. Today, of course, the labs are in the Air Force Systems Command, and they contribute significantly to the front end of new program developments.

But they are not brought as effectively into the process of upgrading existing systems as they might be because, after Systems Command has finished developing and procuring them, they are then turned over to Logistics Command, which does not have the same relationship with our laboratory structure as of course is found in Systems Command.

So that is another benefit that we hope to be able to get, and we think that is important because as we look to the future there are going to be very few all-up new system developments, and a great deal of the capability improvements that we are able to achieve over the coming years is going to be in the form of upgrades to existing platforms and existing systems.

So the seamless cradle to grave responsibility, the one-stop shopping for users, the better technology insertion all through the life cycle of systems, those are the primary considerations we have in mind. Cost savings and efficiencies are there, too, but are not a strong motivation, given that we had already achieved a great deal of that by streamlining of the two separate commands prior to this decision.

Senator INOUYE. General McPeak, from an operations standpoint is it workable?

General MCPEAK. Yes, sir; I am very optimistic that it will provide better support to our operating commands. But in the final analysis, Senator, as you know, our end strength is under pressure and the dollars we have are under pressure, and we simply cannot have business as usual. We have to go out there and look for ways to streamline our operation. This is, I think, a very important streamlining initiative, as well as all the quality support improvements we intend to achieve.

UNIFIED COMMAND PLAN

Senator INOUYE. This week the Chairman of the Joint Chiefs announced the new military force package concept, where you have an Atlantic Command, a Pacific Command, a Strategic Command, and a Contingency Command.

Will the implementation of this new concept involve major restructuring of your command structure or deployment of troops and aircraft and such?

General MCPEAK. Sir, I am going to have to admit I missed that announcement. The Chairman is tasked to do every couple of years a review of the unified command plan [UCP]. The designation of unified and specified commands comes under that UCP. So this headquarters reorganization of the type you are talking about would be part of the Chairman's biennial review of the unified command plan.

I know he has ideas along the lines that you suggest. I just missed his announcement, if he has made an announcement to that effect.

Secretary RICE. Mr. Chairman, I think sometimes a couple of things are getting confused in the public dialog about what the Chairman has been saying, I believe. He has certainly used the four-part structure that you described as a strategic construct for talking about force requirements and for identifying the different kinds of military capabilities and the different kinds of scenarios and regional considerations that we have to take into account.

One could, then, and he may yet decide to recommend that or to announce that, a direct translation of that four-part way of thinking about force planning into a command structure. It had been my impression that there was still some consideration underway as to whether the command structure would change quite that much or not. Obviously it needs to change some from where we find it today.

Senator INOUYE. I will be submitting questions on JSTARS. As you know, this committee has been supportive of the JSTARS program, and Senator Stevens and I were very pleased that we were able to visit that operation in Desert Storm and we were quite impressed. But if I may, I would like to submit a few technical questions on JSTARS.

Secretary RICE. Yes, sir.

Senator INOUYE. I have several questions I would like to submit, all of them of a technical nature, and I would like to have both of you very carefully consider these and submit your responses to us. It would be extremely helpful.

Secretary RICE. We will be happy to, Mr. Chairman.

Senator INOUYE. Before I recess this hearing, since several of the members of this committee have been interested, I would like to announce that I received some preliminary information that some 600 members of the 1st Marine Expeditionary Force will be part of the symbolic airlift of troops leaving Saudi Arabia.

The announcement last night was strictly on the Army. This is on the Marines. There will be no unit redeployments in this first airlift. It will be made up of individual members of component units of the 1st Marine Expeditionary Force, which, incidentally, includes the 3d Battalion of the 3d Marine Regiment that is based in Hawaii, so that is very important. And the members of the 3d Battalion would be expected to arrive in Hawaii at 9:00 o'clock in the morning on March 9. So that is good news for us.

Mr. Secretary, General McPeak——

FIRST ELEMENTS TO DEPLOY

Secretary RICE. Mr. Chairman, excuse me, sir. There have been new announcements about Army and Marine units coming back. I might just mention that the two squadrons of the 1st TAC Fighter Wing, which was one of the very first elements to deploy, as you know, will be returning—was the first unit to deploy, will be returning, the first elements arriving tomorrow at Langley Air Force Base in Virginia.

Senator INOUYE. They are flying all the way back, are they not?

Secretary RICE. Yes; they are flying back. And there will be, I think, C–141 and KC–10 loads bringing some of the ground crews and others, as well as of course the pilots bringing the aircraft, the F–15's, back.

There will be a similar redeployment of the B–52 conventional bomb wing from Loring Air Force Base that will also be returning in the next few days.

Senator INOUYE. Will the pilot who made the first kill be returning, too?

General MCPEAK. I do not know.

Senator INOUYE. Or are you going to leave him there yet?

General MCPEAK. No. [Laughter.]

The first pilot who went there is coming back. The 27th Squadron from Langley has already left. They are en route. They are probably airborne now or maybe just landed in Spain, so they are not coming back nonstop. They will land in Spain and then launch late tonight to be at Langley about noon Friday.

They were the first ones in there. That is Colonel McBroom and that squadron. They did magnificently, but we did not have anybody make ace. The Air Force shot down 31 of the 35 airplanes that were killed, but the best we did, we had two guys get three kills each. So we did not produce any aces in this war.

Senator INOUYE. I can tell you that when we visited the pilots many of them were frustrated.

General MCPEAK. I was crushed by not being over there and have a shot at it.

Senator INOUYE. Well, I thank both of you for your presentations today. As I indicated, this hearing has been most helpful and your explanation of some of the problems the best I have heard yet.

Secretary RICE. Thank you, Mr. Chairman.

Senator INOUYE. We will be going to Palmdale and I will be working with your offices to expedite this.

ADDITIONAL COMMITTEE QUESTIONS

[CLERK'S NOTE.—Additional questions submitted by subcommittee members, together with the Department's responses, will appear in the appendix portion of the hearings.]

SUBCOMMITTEE RECESS

Senator INOUYE. The subcommittee will stand in recess until Tuesday, March 12, at 9 a.m., and at that time we will receive testimony from the Honorable Lawrence Garrett, Secretary of the Navy, along with the Chief of Naval Operations, Adm. Frank Kelso, and the Commandant of the Marine Corps, Gen. Al Gray.

Thank you very much.

[Whereupon, at 11:27 a.m., Thursday, March 7, the subcommittee was recessed, to reconvene at 9 a.m., Tuesday, March 12.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1992

TUESDAY, MARCH 12, 1991

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9 a.m., in room SD–138, Dirksen Senate Office Building, Hon. Daniel K. Inouye (chairman) presiding.

Present: Senators Inouye, Hollings, Leahy, Sasser, DeConcini, Bumpers, Stevens, D'Amato, Rudman, Cochran, Specter, and Domenici.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE NAVY

STATEMENT OF HON. H. LAWRENCE GARRETT III, SECRETARY OF THE NAVY

OPENING STATEMENT OF SENATOR INOUYE

Senator INOUYE. Mr. Secretary, Admiral Kelso, General Gray, the subcommittee welcomes the Navy-Marine Corps team to the subcommittee's fifth hearing on the fiscal year 1992 budget request. I think all of us will agree that this subcommittee has been traditionally a strong supporter of our Navy and Marine Corps, and in that spirit we salute all of you on a job well done in Operation Desert Shield and Desert Storm.

As with other American armed services, the Navy and the Marine Corps face one of the most challenging periods in their history. The struggle to manage the defense builddown while protecting essential military capabilities will be a long and arduous task on our part. The subcommittee will be most interested in learning how the Navy and Marine Corps are coping with this challenge and how they are going about redefining their missions and requirements for the future.

Congress will also be laboring hard to understand the military and fiscal implications of the budget request and future defense plans, and so we will need your very candid advice and insights to help us in this very important task.

All of us are joyous over the first real victory we have had in the last 15 years. We all hope that there will not be another war for many, many more years, if ever. However, the world remains an uncertain and unfriendly place in many ways. We must make our defense spending decisions in this and future years with sufficient care and foresight to make certain that the United States and our friends will prevail in any future conflict.

So we look forward to receiving your testimony this morning and responses to our questions.

Mr. Secretary, it is your show, sir.

STATEMENT HIGHLIGHTS

Mr. GARRETT. Thank you very much, Mr. Chairman, members of the committee.

I welcome the opportunity to review with you the posture of the Navy-Marine Corps team and discuss the Department of the Navy budget for the fiscal years 1992 and 1993. I ask that my formal statement be inserted in the record.

Senator INOUYE. Without objection.

Mr. GARRETT. Mr. Chairman, the United States over the last 10 years has made a substantial and a concerted investment in its military security—not least in its sea power. That investment has paid, I submit, invaluable dividends—by first accelerating the end of the cold war, by ensuring our ability to counter aggression, and by serving notice that America is a credible moral force for international stability and human freedom.

The extraordinary men and women of our armed services—backed by the support of this Congress—proved that point decisively 2 weeks ago when they secured the liberation of Kuwait from Saddam Hussein's brutal occupation. They have, I submit, earned our unqualified pride, our respect, and our gratitude.

The challenge before us, as you point out, now is to preserve that investment at a time of great geostrategic uncertainty and to do so in a way that makes both fiscal and military sense.

PRIORITIES ESTABLISHED

The budget you have before you, Mr. Chairman, addresses that challenge. The maritime policy upon which it is built derives in turn from four key realities about the evolving world order.

First is the fact that the United States must remain firmly engaged in a world that is economically interdependent. The vast majority of our trading partners are on the opposite side of one ocean or another. Our economy, our way of life, and even our physical security depend on both the safety of our allies and the security of our seaborne trade routes. Current events make it abundantly clear that we simply cannot afford to retreat into isolationism or to abandon our maritime superiority.

Second is America's increasingly limited access to overseas bases and military facilities. Our national strategy will depend even more than it does today on self-contained, forward-deployed maritime forces that can project a wide range of power from international waters anywhere on the globe.

Mr. Chairman, our fundamental policy of maintaining forward-deployed, combat-ready naval forces allowed the United States to have the striking power of two carrier battle groups on the scene within days of Saddam Hussein's invasion of Kuwait; and the first fully operational, combat-ready mechanized force in Saudi Arabia was the 7th Marine Expeditionary Brigade, supported by equipment loaded in forward-deployed maritime prepositioned ships.

A third important factor is the diversity of potential threats to American and allied security—from terrorist attack, to conventional armed aggression, to nuclear blackmail.

Finally, the threat of a global war with the Soviet Union has diminished, but the future of perestroika, I submit, is still uncertain, and the powerful potential of the Soviet navy has not lessened. At the same time, weapons of mass destruction have proliferated throughout the world.

In short, Mr. Chairman, our naval policy is to support the Nation with forward-deployed Navy and Marine Corps forces that can perform their missions worldwide and adjust to rapidly changing strategic and tactical circumstances—all within the fiscal restraints established for us.

It is toward that end that we have identified our budget priorities. The most important, as I have said to you before, is our people. The war in Iraq was won by skilled, courageous, and dedicated men and women who volunteered to serve their Nation, at extraordinary personal risk. Their concerns are my concerns and the concerns of all of the Navy and Marine Corps leadership: compensation, quality of life, training, and the benefits we provide them as service members, veterans, and as retirees. They are without question our most precious asset.

Following closely is training. Our ability to respond to rapidly developing crises depends on units and personnel that are practiced, professional, and combat-ready. Ships, airplanes, and tanks are of little use without well-trained people to man them.

Next is readiness and sustainability, and by that I mean the ability to bring a credible and effective force to bear in combat when and if the national leadership requires such an option. We were able to confront Iraqi aggression because we had the means to sustain and support a full-scale operation for an indefinite period of time. To safely address sophisticated and volatile threats into the 21st century, we will need to maintain that standard of readiness and sustainability.

Another critical priority is to maintain a balanced force as we build down our naval force structure. We are on the road to a smaller Navy and a smaller Marine Corps. Our objective is to maintain an appropriate balance of war-fighting capabilities while also balancing our force structure against our manpower needs. It makes no sense to keep our harbors filled with ships and our hangars filled with airplanes if that means sacrificing the training, the readiness, the quality, and the morale of the people required to make them work.

A keystone to our ability to build and maintain a Navy is our infrastructure and our industrial base. America's strategic advantage depends fundamentally on a healthy, productive, innovative, and competitive national industry. We simply cannot afford to drive our defense industrial base, especially our vital shipbuilding industry, offshore.

Technology is another key priority. Operations Desert Storm and Desert Shield amply validated our traditional emphasis on technological superiority. Advanced high-technology weapons systems not only served to save American lives, they significantly limited death and damage to noncombatants. As our force structure reduces in size, it becomes even more important that we preserve our technological advantage with vigorous research, development, and operational evaluation.

Mr. Chairman, the new world we face is one of great promise, but, as you pointed out, it is also one of great danger. The stability, the freedom, and the prosperity of the international community will depend in the end on America's consistent strength and leadership.

With that in mind, we have, in the Department of the Navy, looked very hard, not only at the challenges to America's security, but at the way we do business. The budget before you represents a maritime force which is smaller than we have had before, but one which remains combat-capable, cost-effective, and tailored to the threats we are likely to face as the 20th century draws to a close.

I thank you, Mr. Chairman. I will be happy, after the Chief of Naval Operations and the Commandant submit their statements, to respond to your questions.

Senator INOUYE. Thank you very much, Mr. Secretary.

[The statement follows:]

STATEMENT OF SECRETARY H. LAWRENCE GARRETT III

INTRODUCTION

Mr. Chairman, members of the committee, I welcome the opportunity today to review with you the posture of the Department of the Navy, to present our biennial budget for fiscal years 1992 and 1993, and to review the operations of our Navy and Marine Corps during the past year. This is my third appearance before this committee, once presenting this report as the department's undersecretary, and last year far the first time as Secretary of the Navy. As I stated in my report a year ago, we see increasingly dramatic changes throughout the world. We are witnessing events that we could not have predicted in advance. These changes are shaping what the President has appropriately called a new world order.

I view the presentation of this posture statement as my most important task thus far as secretary of the Navy. The events in today's headlines are among the most consequential for the United States since World War II. My message today is framed by the events in the Middle East, and it is very simple. Over the past decade we have chosen to invest a great deal in the United States Navy and the United States Marine Corps. In terms of naval power, we have bought a tremendous amount of capability with that investment. Since the defense build up, and prior to operation Desert Storm, we had not been called upon to perform in combat to this degree, so we had not fully verified the wisdom of our force building. It is apparent now that we did the right thing. The vision of the national leadership has clearly been validated many times over. Navy and Marine Corps weapons, equipment, and people have combined to give the U.S. the most capable sea power in the world today. In and around the Persian Gulf, U.S. naval forces are participating in joint and combined combat operations to defend Saudi Arabia and liberate Kuwait.

Besides the Middle East conflict, U.S. naval forces remain deployed all around the globe, maintaining a forward presence in support of America's security objectives and global interests.

DESERT SHIELD AND DESERT STORM: NAVAL SUCCESSES

When Iraq invaded Kuwait on 2 August 1990, the Navy's Middle East Force, part of the existing Joint Task Force Middle East, had a total of eight ships assigned. USS *La Salle* (AGF-3) was in theater as the Force flagship, accompanied by one cruiser, one destroyer, and five frigates. To deter further Iraqi aggression, the aircraft carriers USS *Independence* (CV-62) and USS *Dwight D Eisenhower* (CVN-69) moved immediately to the northern Arabian Sea and the eastern Mediterranean. Consequently, naval deterrent air power was on station three days before the ground force and land-based air force deployments began. Our Maritime

Prepositioning Ships sortied from Guam and Diego Garcia on 7 August. The first ship unloaded in Saudi Arabia one day after the lead Marine element arrived. Accordingly, the Seventh Marine Expeditionary Brigade (7th MEB) became the first fully operational, combat-ready, mechanized force in Saudi Arabia. The activation of over 70 ships from this nation's Ready Reserve Force and the accompanying massive sealift operation paid off significantly. It is important to note that over 85 percent of United States supplies, munitions, and equipment in Saudi Arabia to date moved there by sea.

When Operation Desert Storm began last month, we had over 100 ships, over 67,000 sailors, six aircraft carrier battle groups, two battleships, attack submarines, a 31-ship amphibious battle group with over 17,000 Marines embarked, and a heavily reinforced Marine Expeditionary Force with over 68,000 Marines ashore in theater.

Operation Desert Shield, which became Operation Desert Storm, is the largest, best sustained, and most successful maritime interdiction operation ever undertaken by the United States. In support of the United Nations' economic embargo of Iraq, we challenged and intercepted over 7,000 ships. Nothing got through from the sea.

The first shots of Operation Desert Storm were TOMAHAWK cruise missiles launched from our ships in the Persian Gulf and Red Sea against carefully selected military targets in Iraq. The cruise missile assault began an air campaign marked by unprecedented cooperation between U.S. and coalition forces. Our Navy carrier-based and Marine Corps land-based aircraft have played key roles throughout the campaign, providing about one-third of U.S. sorties. At the same time, the Navy has eliminated any threat posed by the Iraqi Navy. Our naval support throughout this joint and combined military effort is an unqualified success story and one of which we are justifiably proud.

During the force build up for Operation Desert Shield, many of our national successes were maritime successes. Naval forces provided to our nation's leadership a wide range of options. We had the option to defend, the option to embargo, and eventually the option to reinforce our forces and eject Iraq from Kuwait. We had options that were immediately available without the assistance of any other nation, and we had options offering military support to other sovereign states outside the region.

The maritime interdiction operations in Operation Desert Shield were superb. In Operation Desert Storm, Saddam Hussein has learned too late the most essential lesson of seapower: You either have the ability to keep sea lanes open to provide for the economic well being of your nation, or you do not.

A clear lesson we have learned from interdiction and combat operations to date is the overwhelming advantage technology has given our Navy and Marine Corps. This advantage promises to allow us to end this conflict relatively quickly with the fewest number of American casualties.

Once again, sea control has proven to be a non-negotiable necessity for successful power projection. In the conflict with Iraq, sea control was nearly a given. However, in other potential regional conflicts, air superiority, surface superiority, and undersea superiority might well be more challenging. Achieving sea control and air superiority near land and over land will be complex and demanding. Systems designed for operations in the open ocean environment may not work as well. Warning and reaction time will be reduced and the tactical picture will be different. Our naval forces will have to be capable of achieving air, surface, and undersea superiority to ensure that follow-on ground and air forces can be quickly introduced. After land-based forces are on scene, we must provide the protection to ensure that sealift and airlift continue unabated, while enhancing from the sea America's land-based power projection capabilities. Simply stated, power projection operations beyond our own shores cannot be sustained without control of the sea.

NAVAL POLICY

The United States has been the world's preeminent maritime power since the end of World War II. We have been able to sail the high seas uncontested. Global peace and stability have been greatly enhanced and often guaranteed directly by United States maritime power. Today, however, we are facing severe reductions in naval forces. We are also facing changes in the international security environment. Our challenge is to sustain our traditional maritime preeminence through the effects of these changes.

Today we find ourselves amidst one of history's great ironies.While the world progresses toward democratization, conflict nevertheless continues in Southwest Asia. Events in the Soviet Union give us real cause for concern. On the Arabian peninsula and in the Persian Gulf we are engaged in a real war. When that war is over, we must continue to forge a national policy that is consistent with and which fosters the new world order. It will be especially important for the Department of the Navy to be realistic about expected resources and force structure. Nevertheless, we will continue our vital contribution to stability and security on the seas and throughout the littoral regions of the world.

Our naval policy begins with the principal charter of the Department of the Navy. Simply put, to the degree fiscal constraints permit, we must provide the nation's military commanders with a Navy and a Marine Corps capable of performing their missions worldwide; naval forces which can sustain forward presence as called for by the national security strategy; and forces able to adjust to changing strategic and tactical circumstances.

There is general agreement in America that the world is no longer faced with an immediate Soviet threat. Rather than a world threatened by bipolar superpower confrontation, this is a world which will be shaped by multipolar interests and regional conflicts. In this world, we will have a smaller Navy and a smaller Marine Corps. We will, however, retain the elements of conventional deterrence, strategic nuclear deterrence, and the flexibility necessary to respond to threats throughout the world.

The distinct challenge to the Department of the Navy will be to sustain the maritime power which we currently possess. The goal of our defense programs is to provide flexible forces, forward deployed. They must be capable of conducting major sustained operations like Operation Desert Storm, yet be able to respond to contingencies like the non-combatant evacuations of Liberia and Mogadishu.

Even with a smaller Navy and Marine Corps we must maintain maritime superiority. Naval strength enables us to exercise world leadership across the oceans as we build new alliances while maintaining our traditional alliances.

1990 and 1991 are watershed years for our new naval policy. We are adjusting our naval forces to a new global strategic reality, and we are nearer to the beginning of a period of transition than we are to the middle or the end of it.

Some of our past strategic and policy concepts are no longer applicable to the future. There are four implications of change to our United States naval policy:

—Economic interdependence. We will have a continued global engagement, with naval forces providing presence throughout the world. We cannot afford to retreat into isolationism.

—New political realities. There will be limits on United States access throughout the world. We will not enjoy the overseas basing upon which we have previously relied. Sea-based forces will play a more central role during the early phases of future crises.

—Different Threats. These threats will include terrorists and third world countries with state-of-the-art weapons. Some regional powers will threaten their neighbors. Some nations will strive to acquire or develop nuclear, chemical, and biological weapons, and have the will to use them. The emerging world may be even more prone to conflict than the old world of the superpower confrontation.

—Uncertainty. Timing, location, and even the identity of threats will be uncertain. We may not have clear warning, and we may not understand political motivation.

THE RECEDING SOVIET THREAT

Our traditional threat has been the Soviet Union, where fundamental forces of change are at work. The Soviets would like a calmer international climate, especially with respect to the United States. They would like to focus on their internal economic and political concerns. Last month, however, we saw a contradictory trend in Soviet policy, and it is disquieting.

The Soviets now have a declared defensive doctrine, which we have seen in their operations. Their military leadership has insisted that the threat of war with the United States has receded, yet they still consider military threats to the Soviet Union to be significant. In the naval environment, the Soviets remain just as capable today as they were six years ago. We have seen political changes and clear defensive intentions, but it would certainly be imprudent to dismiss the Soviet threat. We should not take irreversible action on our own while Soviet naval capabilities are this formidable, and while the Soviet political scene is so unstable and unpredictable.

NAVAL STRATEGY

If our strategy for the cold war was one of containment, our new strategy should be one of stability, focusing on peacetime presence and regional conflict. We will prevent regional conflict where we can, engaging ourselves militarily only when we must. In the 1980s, our forces were built to counter the Soviet threat. In the 1990s, the forces we will retain and build must address peacetime presence, deal with regional contingencies, and continue to pace the Soviet threat. The decades since World War II required maritime superiority and so do the 1990s. Fiscal realities have also made affordability an important factor to be considered in sustaining maritime superiority. We must provide the best affordable mix of forces and capabilities. And we must maintain for the Navy and the Marine Corps a high state of readiness.

The hard work of freedom includes maintaining a regional peacetime presence. By maintaining a global forward presence with sea-based forces, we are not bound to any land mass, and can respond wherever Americans or American interests are threatened worldwide.

In our stability strategy, there is a fundamental shift in force structure and operations. Power projection forces have a greatly increased strategic value. Naval forces' striking capabilities are important, something clearly illustrated by Operation Desert Storm. Air strikes have been conducted by carrier-based aircraft. TOMAHAWK cruise missiles were launched from surface ships and submarines. The Marine Corps has provided a forcible entry capability in amphibious warfare and rapid response with maritime prepositioned forces.

Given continued changes in the Soviet Union, we eventually expect to see a diminished open ocean anti-submarine warfare threat. It must be said, however, that while the potential for a Soviet threat on the open ocean has not diminished, Soviet intentions today are more clear with respect to a defensive deployment of forces. Their capabilities, however, have not exactly matched their strategic intentions. The high technological quality of the Soviet submarine threat, apart from political considerations, remains a major concern. We must retain viable force structures while we draw down to a level appropriate to the threats we expect to face. Some Soviet naval threat will continue, and we should be prepared to counter it as necessary. We are continually re-assessing the Soviet Union, and must reserve the right to rebuild in response to its action in the future.

FUTURE STRATEGY AND FORCE STRUCTURE

In the new world order, we may find an increasing maritime emphasis, mainly because the future of overseas basing is, at best, problematical. It would be wrong to withdraw to a "Fortress United States." Instead, we must ensure that elements of all services, particularly the naval services, are forward deployed. Our forward presence maintains stability for conventional deterrence and readiness for crisis response. Naval forces are almost always the first on scene in time of crisis and bring with them a full range of military options. If amphibious forcible entry becomes necessary, Marines are always embarked on amphibious ships that are continually forward deployed.

As America serves the world fostering freedom and democracy, we may find more nations asserting their sovereignty by denying the U.S. bases for tactical aircraft, overflight rights, and forward basing of ground forces. Naval forces solve this problem. This is a principal reason for our national insistence on maintaining a strong Navy and Marine Corps.

In any joint operation, naval forces play a vital "stiff-arm" role to allow the rapid introduction of heavy ground forces and land-based air forces. This was clearly demonstrated last August in the opening days of Operation Desert Shield.

The cornerstone of United States defense policy is to provide credible deterrent forces, convincing any potential adversary that his contemplated aggression against U.S. national interests cannot succeed. Several capabilities are essential to achieve credible deterrence in the evolving international security environment. These capabilities are the essence of our naval force structure charter.

Strategic nuclear deterrent forces remain the bedrock of our national defense. Deterring Soviet nuclear capabilities is still essential to U.S. survival. Our nuclear powered strategic submarine force contributes to this deterrent and anchors the Navy's contributions to the nation's defense.

Peacetime forward presence of U.S. naval forces is the main element of conventional deterrence. "Forward presence" is a change from the cold war's "forward defense" in Europe, but there is little change from a historic U.S. naval perspective. It is consistent with the receding threat and reduced force levels driven by fiscal constraint. Forward presence is critical to deter aggression and preserve regional stability. Forward presence protects U.S. interests and provides the most visible evidence of our commitment to employ our military capability. With forward deployed forces, we can respond to crisis and control escalation beyond the initial outbreak of violence.

Peacetime forward presence is also critical to maintain our security alliances. We shall continue to maintain a forward maritime presence in the Pacific, the Indian Ocean, the Mediterranean, the Persian Gulf and Red Sea, the North Atlantic, the South Atlantic, and the waters around the North American continent.

The Department of the Navy must be prepared for a major regional contingency. The mobility of national forces is critical toward supporting this part of our national strategy. Strategic sealift, amphibious forces, and maritime prepositioning forces, in particular, are keys to our successful response to regional crises.

Our nation must retain the capability to respond to a rapid shift in Soviet strategy which could return us quickly to bipolar global confrontation. The ability to reconstitute forces rapidly means that politically, we must make early decisions. This is particularly critical for naval forces, where shipbuilding is complex and long term. It is imperative that our naval industrial base be preserved.

PRIORITIES

The Department of the Navy fiscal year 1992/1993 budget responds to these challenges. The budget is based on complementing priorities. Our priorities are people, training and readiness, war preparedness, balanced force reductions and force structure,infrastructure and industrial base, and technology.

PEOPLE

Our most important budget priority for 1992 is maintaining the high quality of our sailors and Marines. In today's headlines, we are increasingly focused on technology. We should not forget that this war is being fought not by machines, but by men and women of significant dedication, courage, and professionalism. Through their sacrifice we are winning the war in Southwest Asia. Through their efforts our strategy will succeed in the future. Their concerns are my concerns: compensation, quality of life, training, and the benefits we provide them as service members, veterans, and retirees. We have an all volunteer force and it works.

TRAINING AND READINESS

Ensuring that the Navy and Marine Corps are ready for combat is the most significant task facing the Department of the Navy. Training and readiness are essential to the execution of our naval strategy. Training and readiness are critical today, particularly when resources are limited and the future is uncertain. We are committed to ensuring that our naval forces are trained and equipped to respond to any contingency despite limited resources. We shall not return to a hollow force. Our forces will be smaller but just as capable of meeting the threats of the future.

WAR PREPAREDNESS

We were prepared in 1990 to respond to a crisis in Southwest Asia. Today, being prepared means sustainability, supporting full-scale offensive operations indefinitely. War preparedness into the 21st century will mean a realistically measured force level, guaranteeing our people quality of life while maintaining a full readiness and response capability.

BALANCED FORCE REDUCTIONS AND FORCE STRUCTURE

We have already begun building down toward a smaller, balanced force. As ships retire they will be replaced with more capable ships at less than a one-to-one ratio. Other ships will be retired when due for overhaul in order to cut back at the most cost-sensible point. Older submarines will be retired rather than undergoing nuclear refueling overhauls. Our Marine Corps will get smaller not only by reducing, but also by restructuring. The future force must meet the demands of peacetime presence and response to major regional crises. Because we will have less surge capability, some high tempo operations will become more difficult. We believe that the key to a smaller force is balance. We must avoid giving the perception of weakness that might cause a potential adversary to misread us, and therefore weaken the credibility of our deterrent strategy.

INFRASTRUCTURE AND INDUSTRIAL BASE

The United States cannot maintain strategic advantage without a credible, capable industrial base. The capability to expand substantially our shipbuilding may well be necessary in the future. The strength of our national industry is as important to the national security as our military forces. To be able to reconstitute forces, we need a vibrant industrial base. Its competitiveness must also be a priority.

TECHNOLOGY

One of our most demanding prerogatives is maintaining our current technological edge. We must continue, for example, to gauge the undersea warfare capability that over 200 attack submarines give the Soviets. As our strategy and the world order shift, we must refocus our technology on the changing threat. Technological superiority is non-negotiable. It demands a vigorous research and development program which will permit us not only to compete with advanced military technology, but also to strengthen our own technological base.

NAVAL FORCES IN THE NEW POST-COLD WAR ENVIRONMENT

Our budget goal is to balance the required reductions in our naval forces. Net adjustments will bring us to a future force of about 477 ships in fiscal year 1992, 464 ships in fiscal year 1993, and 451 ships in fiscal year 1995. Five force structure elements shape our reductions:

—12 operational aircraft carriers to give us our required forward presence

—Enough amphibious ships to lift two and one-half Marine expeditionary brigades

—Three smaller Marine Expeditionary Forces

—18 Trident SSBNs

—An appropriate balance of other ships, including about 150 surface combatants.

With 451 ships in peacetime, naval forces can do the following:

—Sustain between two and three carriers forward deployed for presence and immediate crisis response

—Keep 14 SSNs deployed

—Keep between two and three amphibious ready groups, each with embarked Marines, on station

—Provide 25 to 30 surface combatants for forward presence

—Sustain these deployments indefinitely, using about 30 percent of all forces forward deployed

—Tailor forces for specific operational and political circumstances

—Quickly change geographic disposition

—Form carrier and amphibious strike forces and respond to emerging crises within one to seven days.

—Sustain these levels for a prolonged period while providing the quality of life our sailors and Marines deserve.

THE BUDGET

We are adapting our forces and our support organizations, and we are carefully re-evaluating our traditional missions. Even as the unpredictability of the future has grown, fiscal pressures have reduced available resources. Remaining resources must be focused on capabilities that are achievable and applicable to the new security environment.

Department of the Navy resource reductions have been aggressively managed by a number of initiatives, many of them evolving from the Defense Management Review. Supply depots and depot-level maintenance, for example, have consolidated more functions, resulting in significant savings. Unfortunately, it has not been possible to absorb all of the required reductions by management initiatives alone. Much of the reduction must be absorbed by force structure, as previously discussed, drawing the Fleet down to 451 ships in fiscal year 1995.

Personnel end strength is being reduced hand-in-hand with force structure reductions. Mandated military personnel levels could eventually drive the force of active ships actually below the number we can afford. Prudent and timely base closures will be imperative in order to balance our infrastructure with Fleet size. Fiscal year 1993 new-construction funding has been reduced to a minimum, pending the recommendations of the Congressionally-chartered Defense Base Closure Commission.

We have terminated large acquisition programs, including the A12 and P–7. The F/A–18 production rate has been reduced. Research and development of the Navy advanced tactical fighter has been terminated. Construction of the DDG–51 has been significantly reduced. Our WASP-class (LHD–1) multi-purpose amphibious assault ship program has been reduced to five ships and by fiscal year 1997 all of the IWO JIM (LPH–2) class amphibious assault ships will have been retired. The SSN–21 program has been scaled back. Construction of additional Trident submarines has been terminated. The Trident submarine backfit program has been delayed, and procurement of the Trident D–5 missile has been reduced accordingly. The MK–48 advanced capability torpedo program is being reduced to single-source production.

Funding for operating requirements related to Operation Desert Storm is not reflected in the department's budget submission. Our tempo of operations is budgeted at historical levels in accordance with the budget summit decision to consider a supplemental appropriation for Operation Desert Storm and track its expenses off budget.

FORCE AND MANPOWER LEVELS

The number of our deployable battle force ships and the size of our Fleet Marine Forces decline through the budget years. The budget request provides a total deployable battle force of 477 ships by the end of fiscal year 1992 and 464 ships by the end of fiscal year 1993.

New ships joining the battle force in fiscal year 1992 include three AEGIS cruisers, one AEGIS guided missile destroyer, one nuclear-powered aircraft carrier, one fast combat support ship, three mine warfare ships, one Trident submarine, four nuclear-powered attack submarines, two amphibious warfare ships, two towed array surveillance ships, and four Military Sealift Command oilers.

New ships joining the battle force in fiscal year 1993 include three AEGIS cruisers, two AEGIS guided missile destroyers, one fast combat support ship, one amphibious assault ship, four mine countermeasures ships, one Trident submarine, three nuclear-powered attack submarines, one towed array surveillance ship, and three Military Sealift Command oilers. Also in fiscal year 1993, one conventionally-powered aircraft carrier rejoins the battle force after completing a service life extension program.

We inactivate 75 ships and transfer eight KNOX-class frigates to a non-deployable reserve status during fiscal year 1992. Thirty-two ships will be inactivated and one mine warfare ship will transfer to a non-deployable reserve status during fiscal year 1993.

We have designed an "Innovative Naval Reserve Concept" to enhance our reserve ship mobilization base in a highly cost effective way. Eight *Knox*-class, non-deployable reserve frigates will be "Type II" reserve training ships. Each will train its own selected reserve crew and four additional "Type III" reserve crews. These crews could reactivate 32 *Knox*-class "Type III" hulls kept ready for sea within 180 days.

Average unit operating tempo during the budget years will remain unchanged at 50.5 underway days per quarter for deployed units and 29 days per quarter for non-deployed units.

The number of active Navy carrier air wings will decrease from 13 to 12 by fiscal year 1992 and to 11 in fiscal year 1993. The number of Navy reserve carrier air wings will remain at two. We will retain three active and one reserve Marine Corps air wings. The configuration of both Navy and Marine Corps air wings will continue to be restructured. Our flying hour program provides 85 percent primary mission readiness.

In the Marine Corps, we are deactivating eight rifle companies, a regimental headquarters, an artillery battalion, a tank battalion, and an armored assault battalion. Marine aviation will deactivate an A–6 squadron and a KC–130 squadron.

We must continue to emphasize people as we transition to a smaller force. End strength will be significantly reduced in each of the first five years of the future years defense plan. We must ensure that the cuts we make do not result in hollow force structure and must work assiduously to avoid involuntary separations.

Our Total Force concept, adopted in 1973, was not combat tested until this year. Over 16,000 Naval reservists and 31,000 Marine Corps reservists have been recalled to date. They include Fleet Hospitals, Cargo Handling Battalions, Navy SEABEES, and combat augmentation of the Marine Expeditionary Force. Every day of Operation Desert Storm is providing insight into the benefits of reserve mobilization. A ready, properly sized reserve force will be critical to the shape of our future force structure.

The budget reduces Navy active duty end strength by 18,321 in fiscal year 1992 and 15,400 in fiscal year 1993, resulting in a total end strength of 536,000. The budget also reduces Marine Corps active duty end strength by 5,735 in fiscal year 1992 and 5,800 in fiscal year 1993, bringing end strength down to 182,200 by the end of fiscal year 1993. Reductions also come from the conversion of 3,338 military billets to civilian billets in fiscal year 1992, with 5,006 more billets converted in fiscal year 1993. Our Department of the Navy civilian end strength declines by 29,783 in fiscal year 1992 and 37,220 in fiscal year 1993.

NAVAL AVIATION

On 2 August 1990, when faced with the current military crisis, the President asked a familiar question: "Where are the carriers?" Within five days, two aircraft carrier battle groups were on station prepared to conduct prompt and sustained combat operations. Two more were en route. We may never know if Saddam Hussein intended to continue into Saudi Arabia, but this initial show of resolve undoubtedly deterred Iraq from further incursions. Our carriers provided us the time required to build our political coalition and move our land-based military forces into theater. Today, six carriers are on station and three more are on call.

Our carrier presence was no accident. USS *Dwight D. Eisenhower* (CVN–69) was on station in the Mediterranean Sea. USS *Independence* (CV–62) was in the eastern Indian Ocean in keeping with our historical deployment patterns. This response clearly demonstrates the wisdom of our national investment in carriers and their embarked air wings.

During fiscal year 1990, one new carrier, USS *Abraham Lincoln* (CVN–72), was commissioned, replacing the World War II vintage USS *Coral Sea* (CV–43) Three additional carriers are currently under construction and will replace older carriers. By retaining a base force of 12 operational carriers, we will sustain a strategy of forward presence independent of uncertain foreign basing rights. We are committed to maintaining the staying power necessary to see a crisis through to a stable conclusion.

We have an equally important investment in embarked carrier air wings. Today six carrier air wings and one significantly reinforced Marine air wing are engaged in combat. The success of Operation Desert Storm again attests to the wisdom of past priorities: aircraft modernization, weapons procurement, survivability, and joint interoperability programs.

The need to adjust to a new strategy and the realities of fiscal constraints has required many difficult decisions. The A–12 and P–7 programs were canceled due to inadequate contract performance.

Our fiscal year 1992 budget funds 36 F/A–18C/D aircraft and begins development of an F/A–18 range and payload upgrade targeted for fiscal year 1996 introduction. We are also working toward definition and acquisition of an A–6 replacement aircraft necessitated by the A–12 cancellation. Another key naval aviation research and development priority is Marine Corps medium lift replacement. We will continue modernizing our helicopter antisubmarine warfare capability, our logistics and counter-mine warfare capabilities, our combat search and rescue programs, and our undergraduate pilot training. Our budget will fund an upgrade for three EA–6B PROWLER jets and begin the demonstration and validation phase of the next-generation attack aircraft.

SURFACE WARFARE

The opening salvo of Operation Desert Storm heralded a new age in Surface Warfare. For the first time, inland strikes were conducted not only by Navy and Marine aircraft, but also by the TOMAHAWK cruise missile. It was launched in combat for the first time from ships of our surface force.

This capability is the result of nearly two decades of dedicated research and development. The investment we made in this technology permits us to attack well-defended strategic targets with extreme accuracy. It preserves aircraft and their crews for missions which only manned aircraft can execute.

On the 4th of July, our newest AEGIS combatant, the *Arleigh Burke* (DDG–51) guided missile destroyer, will enter the Fleet. In addition to *Arleigh Burke*, four other AEGIS destroyers are under construction. We have a total of 17 DDG–51 class ships under contract.

The *Ticonderoga*-class AEGIS guided missile cruiser has been one of the Navy's most successful acquisition programs. The 27th ship of this class is now under construction. Later this year the Navy will commission *Cowpens* (CG–63) *Gettysburg* (CG–64) and *Hue City* (CG–66)

Our budget for fiscal year 1992 includes five *Arleigh Burke*-class guided missile destroyers (DDG–51), one dock landing ship (cargo variant) (LSD (CV)), two coastal minehunters (MHC), one fast combat support ship (AOE) one oceanographic research ship (AGOR) and one survey ship (TAGS) Twelve landing craft air cushion (LCAC) are also budgeted.

Our budget for fiscal year 1993 includes four DDG–51s, one LSD (CV) two MHCs, one ocean surveillance ship (TAGOS) and two TAGSs.

Sixteen DDG–51s are planned for procurement between fiscal year 1991 and fiscal year 1994.

THE SUBMARINE FORCE

Our attack submarines have stealth, mobility, firepower, and endurance. They conduct intelligence gathering and surveillance missions, sea and land strike warfare, anti-submarine warfare, and special force operations.

The SSN–21 *Seawolf* submarine program will maintain this nation's undersea superiority. It will also undergird our power projection capability and carry our submarine force into the 21st century with a significant technological advantage. The SSN–21 will double the firepower of today's most advanced submarine. It will have the highest tactical speed, be able to incorporate future technology, and will be the quietest submarine in the world, at any speed. Our budget requests one SSN–21 per year in fiscal years 1992 and 1993, continuing at this rate through fiscal year 1995. SSN–21 will ensure that our future submarine force will be superior to today's force and capable of defeating any developing threat.

Our strategic submarine force provides nearly 50 percent of U.S. strategic nuclear warheads for about 25 percent of our total national strategic budget. Its enormous contribution to the strategic triad was expanded in 1990 by the deployment of the Trident II D–5 missile. This missile has improved accuracy, greater range, and larger payload, allowing our strategic submarines to engage the entire range of strategic targets. The 18th Trident submarine, appropriated in fiscal year 1991, will be the last in its class.

MARINE CORPS PROGRAMS

The Marine Corps lines in the budget will fund ammunition, tracked combat vehicles, armaments, missiles, communication and electronics equipment, support vehicles, engineering equipment, and spare parts.

New equipment in fiscal year 1992, will include the Pedestal Mounted STINGER, Single Channel Ground and Air Radios (SINCGARS) and Night Vision Equipment. New equipment in fiscal year 1993 will include, among other items, the Advanced Anti-tank Weapons System-Medium (AAWS–M) and the Joint Service Imagery Processing System (JSIPS).

The Marine Corps ammunition budget also includes increased numbers of munitions such as small arms, mortar and artillery rounds, grenades, and pyrotechnic devices.

SEALIFT

Operation Desert Shield gave us a unique opportunity to measure the performance of our nation's sealift. The sealift effort has been immensely successful. Sealift moved equipment and supplies more rapidly and over a greater distance than in any other crisis in history. Our success validates the wisdom of recent investments in sealift.

Despite our successes, not all elements of our sealift program performed as we planned. The performance of our Ready Reserve Force was the greatest deficiency. In retrospect, the activation times we set were probably unrealistic, and we obviously need to take a fresh look at the maintenance of these ships. Commercial charter ships played a vital role. These charters will continue to figure prominently in any future sealift efforts. Like ships in the Ready Reserve Force, however, charters are not available quickly enough to meet early delivery requirements.

We are participants in the Mobility Requirements Study in response to Congressional direction. It will nail down our sealift requirements and options. Meanwhile, we have concluded that additional roll-on/roll-off ships will almost certainly be required to improve the responsiveness of sealift. These ships would be well suited for maritime prepositioning, for a reduced operating status like that maintained by our fast sealift ships, or possibly for commercial charter.

In order to speed our acquisition responsiveness once the Mobility Requirements Study is completed, we have already begun a process leading to ship design, construction, or purchase of large, medium speed roll-on/roll off ships.

RESEARCH AND DEVELOPMENT

Our ability to support U.S. national security objectives depends on our investments in research and development. We need technologically superior weapons systems to hedge against the future, when we anticipate that emerging regional powers will have first rate capabilities.

In the Department of the Navy, funds supporting full scale development of new systems grew by 60 percent from 1980 to 1990. Science and technology funding actually decreased over this same period. Our budget in the 1990s reverses this trend, putting greater emphasis on developing our scientific and technical base.

We recognize that we cannot afford to operate as many forces as we can build, and that we cannot build as many systems as we can develop. Given these conditions, it is clear that a firm technological foundation is the best way to maintain superior warfighting capabilities.

The nation's emphasis on a growing technology base requires support for our national technical and scientific infrastructure. Basic research at universities and corporate laboratories is likewise essential to our nation's future scientific and technological advances, including training our future scientists and engineers. Our basic research programs currently emphasize the ocean sciences, advanced materials, and information sciences.

Our exploratory development program funds basic research and gives it the technical maturity necessary to apply it to the Fleet and the Fleet Marine Force. It emphasizes technical areas with the greatest potential payoff consistent with warfare requirements. We have placed particular emphasis on the changing threat, low intensity conflict, shallow water anti-submarine warfare, local area air defense, and advanced amphibious assault.

In 1990, we combined our advanced technology development program with our technology base efforts. The Chief of Naval Research is now responsible for both. These programs develop science and technology with the most promising naval applications. Our emphasis is shifting, however, more toward Advanced Technology Demonstrations, direct involvement of industry, expediting startup times for new initiatives, and selection of high risk/high payoff projects for changing Fleet and Fleet Marine Force requirements.

In the budget for fiscal year 1992, growth occurs in the technology base, in defense-wide mission support, in advanced technology development, and in strategic programs. These increases are offset by a decline in tactical programs caused by the decline in the number of systems entering full scale development. There is also growth in fiscal year 1993 from increases in tactical programs. These programs include F/A–18 improvements, surface ship electric drive, anti-submarine warfare system improvements, and the next generation attack aircraft.

NAVAL RESERVE AND MARINE CORPS RESERVE

The events of the past six months have resulted in the most active role for our Navy and Marine Corps reserve forces in the past 40 years.

In the Naval Reserve, the recall for Operation Desert Shield and Operation Desert Storm has drawn heavily on medical personnel. These reservists are being used largely to fill gaps in hospitals in the United States, but some medical reservists are also serving in theater. Our stateside medical facilities lost many active-duty staff members when Fleet hospital units deployed and the hospital ships USNS *Mercy* (T–AH–19) and USNS *Comfort* (T–AH–20) sailed for the Persian Gulf. These ships were among the first deployed to Operation Desert Shield in August 1990.

Our reserve specialists in Mobile Inshore Undersea Warfare (MIUW) units are serving in the Persian Gulf, providing harbor security and surveillance. The entire MIUW force is in the Naval Reserve. Their employment illustrates the Navy's reliance on reserve personnel for a vital operational capability. Naval Reserve minesweepers are in the Persian Gulf, and reservists are manning the Military Sealift Command detachments which provide intra-theater sealift support. Reserve naval control of shipping units provide scheduling, routing, and liaison support.

The "Innovative Naval Reserve Concept" will be part of an expanded mobilization force. These ships will be dedicated exclusively to training, and designated FFTs.

In the budget, Naval Reserve forces are declining. The number of Naval Reserve force ships will decline from 54 in fiscal year 1991, to 40 in fiscal year 1992, and to 37 in fiscal year 1993. Our Naval Reserve air force will likewise decline: from 610 aircraft in fiscal year 1991, to 575 aircraft in fiscal year 1992, and to 552 aircraft in fiscal year 1993. Operating tempo will be reduced from 21 days per quarter in fiscal year 1991 to 18 days per quarter in fiscal years 1992 and 1993. Naval Air Reserve primary mission readiness will be 87 percent through the budget years.

As Marine Corps forces moved into Saudi Arabia, Marine Corps reservists began to play a crucial role in sustaining our active force. The Marine Corps Reserve provides a source for combat units and individual mobilization augmentees. The reserves are structured, equipped, and trained to reinforce the Fleet Marine Force. They provide the Marine Corps with great strategic flexibility, supporting multiple operational commitments and lengthy sustainment.

Reserve Marine individual mobilization augmentees fill critical billets in the supporting establishment and have been a great resource in Operation Desert Shield and Operation Desert Storm. These Marines have manned crisis cells, provided communications support, and conducted airfield operations.

Since October, a number of selected Marine Corps Reserve units have been ordered to active duty. Some of them have filled vacancies created by deploying active units, while others have deployed to the Persian Gulf.

The Selected Marine Corps Reserve is also active in the war against illegal drugs and in disaster assistance. Marines have supported our counternarcotics joint task forces in the southern United States and in the Caribbean. During natural disasters, Marine Air Reserve forces have flown rescue missions, and provided logistics and communications support to the Federal Emergency Management Agency.

ANTI-SUBMARINE WARFARE

With changes in the world order and our own strategy, it is appropriate to reexamine the top-priority emphasis we have previously placed on countering the Soviet submarine threat. Although there has been no observed reduction of Soviet submarine capabilities, Soviet deployment patterns have significantly changed. Accordingly, anti-submarine warfare investment can once again proceed at a more measured pace, with particular emphasis on research and development. Clearly, our anti-submarine warfare capabilities and potential must be maintained to defend against any change in Soviet intentions.

Meanwhile, the proliferation of submarine technology in the third world adds a new challenge. We will have to counter quiet, modern non-nuclear submarines in shallow and littoral waters to support power projection operations. It will be one of our toughest problems in the future. Although anti-submarine warfare no longer ranks as the Navy's number one warfighting priority, it will still be one of our top operational requirements.

C3I

In Command, Control, Communications, and Intelligence (C3I) and space warfare, our research and development program for combat data link, the Joint Tactical Information Distribution System (JTIDS) has met all reliability requirements in the first phase of operational testing. The Multi-Functional Information Distribution System (MIDS) (a NATO effort to build a smaller version of JTIDS) has completed program definition phase. MIDS is designed for smaller tactical aircraft, including the F/A–18. The Enhanced Modular Signal Processor (EMSP) program has delivered its first engineering development model. Major software development tools have been provided to the users. A concept and program plan were also developed for Space-Based Wide Area Surveillance.

Major acquisitions are underway in satellite communications. Procurement continues for extremely high frequency (EHF) satellite terminals used with the MILSTAR and ultra high frequency (UHF) follow-on satellite systems. We will procure and deploy nine UHF follow-on satellites, of which six will have EHF packages.

In direct support of Operation Desert Shield and Operation Desert Storm, our NAVSTAR satellite global positioning system has proven to be extremely valuable. We can derive accurate geographical positions independent of terrain. This system has given us a distinct tactical advantage in Saudi Arabia, the Persian Gulf, and the Red Sea.

COUNTERNARCOTICS OPERATIONS

We remain committed to detect and counter illegal drugs. Through joint operations and in cooperation with law enforcement agencies, we are preventing, disrupting, and deterring illegal drug distribution and use.

Testing, education, detection, and enforcement within the Navy and Marine Corps have reduced our incidence of drug abuse to about one percent.

Since 1981, the Department of the Navy has steadily increased support for law enforcement agencies, within the law and federal regulations. Our sailors and Marines play a prominent role in detecting and monitoring the movement of illegal drugs into the United States. The critical integration of C3I support for counternarcotics operations has greatly increased the effectiveness of this program. Sailors and Marines are involved in anti-drug operations with Joint Task Force Four in Key West, Florida; Joint Task Force Five in Alameda, California; and Joint Task Force Six in El Paso, Texas. The Department of Navy assists law enforcement efforts with training, facilities, logistics, maintenance, communications, and equipment. We provide E–2C HAWKEYE aircraft to the Coast Guard and P–3C ORION maritime patrol aircraft to the U.S. Customs Service.

Since 1982, Navy ships have embarked United States Coast Guard Law Enforcement Detachments while providing most of the ships in the joint U.S. Caribbean Squadron. It is this squadron that conducts drug interdiction operations near drug source countries and in choke points.

Over 100 Department of the Navy personnel are presently assigned to anti-drug positions in other agencies including the Office of National Drug Control Policy, the State Department, and the Drug Enforcement Administration.

DEFENSE MANAGEMENT REPORT PROGRESS

The Department of the Navy strongly supports the Defense Management Review process. The Defense Management Report came from an intensive internal management review started in 1989. Consistent with its initiatives, our agenda for change will improve our acquisition process and more effectively manage limited resources.

We are currently implementing the provisions of the Defense Management Report, the Secretary of Defense Management Report Directives, and internal Department of the Navy initiatives. We will consolidate and reduce oversight, enhance decision authority and accountability of program managers and program executive officers, reduce infrastructure, find efficiencies in procurement, and improve the acquisition system.

ASSISTANT SECRETARY OF THE NAVY (RESEARCH, DEVELOPMENT AND ACQUISITION)

We have streamlined oversight of acquisition by creating the office of the Assistant Secretary of the Navy for Research, Development and Acquisition. The ASN (RDA) is responsible for research, development, procurement, and information resources. He is the Navy acquisition executive, senior procurement executive, and information resource management official.

The Department of the Navy has also substantially reorganized its acquisition management structure. We have six program executive officers separate from Navy systems commands, along with five program managers for major acquisition programs reporting directly to the ASN (RDA) We are continuing to review and evaluate our management structure to identify additional improvements and efficiencies.

In reorganizing acquisition management, decision authority and accountability are clearly vested in line managers and are exercised at the lowest appropriate level. We have reduced the secretariat staff for acquisition review and oversight by more than 20 percent. Neither the staff of the Chief of Naval Operations nor that of the Commandant of the Marine Corps are directly involved in program acquisition activities.

We have moved aggressively to implement cost savings from both the Defense Management Review process and our own internal reviews. These initiatives include cost-saving reductions in the supply system and depot-level maintenance efficiencies. We have improved fiscal accounting and control and we have standardized our automated data processing systems. We have also improved the efficiency of Navy Industrial Fund activities including shipyards, aviation depots, and laboratories.

We will continue to focus on finding additional potential efficiencies in our procurement process because management review is not a one-time effort. It requires constant improvement of management by reducing overhead and infrastructure costs while enhancing weapons system performance. As we reduce the infrastructure and realize cost savings, we must continue to maintain the highest standards. Moreover, if we can lower support costs simply by reducing the cost of doing business, we will reduce the impact of the current fiscal environment.

ASSISTANT SECRETARY OF THE NAVY (INSTALLATIONS AND ENVIRONMENT)

Also as part of the Defense Management Review initiatives, the Department of the Navy reorganization has included the establishment of the office of the Assistant Secretary of the Navy for Installations and Environment. This action strengthens our management of the shore establishment and develops environmental, safety, and occupational health programs to support our operating forces.

ENVIRONMENT

Our fiscal year 1992 budget request reflects an increase in environmental funding, demonstrating our commitment to environmental concerns. We are determined to promote an ethic of environmental protection.

To control shipboard pollution, we are installing hardware to remove oil from bilge discharges. Shipboard trash compactors and solid waste pulpers will be purchased in fiscal year 1992. We recently completed a demonstration project that converted 13 tons of ships' plastic waste into park benches. We are pursuing methods to conserve or replace chemicals used in firefighting and other naval operations.

Sixty percent of our shore installations have recycling programs; the rest will have them by the end of this calendar year. We collected over $12 million from recycling last year and used the money to support morale, welfare, and recreation programs.

Because most Navy and Marine Corps bases are on coastal lands, we have custody of some of the nation's most sensitive ecosystems. We have joined with other conservation organizations to establish natural resource conservation programs. Last September, we established the first watchable wildlife area within the Department of Defense at the Naval Communications Unit in Cutler, Maine.

We clean up hazardous waste sites on Navy and Marine Corps installations using funds from the Defense Environmental Restoration Account. Our fiscal year 1992 funding for cleanup represents a 47 percent increase over fiscal year 1991.

We have also revised our procurement practices to minimize environmental pollution. We have removed or reduced plastic packaging on over 70,000 items in our supply system and we are strictly limiting our inventory of hazardous material. We are also introducing recycled steel grit and plastic beads to remove old paint, instead of using toxic chemical methods.

INFRASTRUCTURE ASHORE

All of our budget priorities are reflected in our shore infrastructure. Our goal is to have quality facilities supporting a quality force.

The Defense Base Closure and Realignment Act of 1990 gives us an opportunity to adjust our shore infrastructure. Reductions in our force structure mean reduced requirements for our shore bases. We have begun a review of our entire shore establishment, aggressively pursuing the base closure and realignment process. We expect to identify several candidate bases in the near future. At those bases, we will take every step possible to alleviate local economic hardship and personal turbulence.

TOTAL QUALITY LEADERSHIP

The Department of the Navy is charting its future along a new path of management innovation and systems integration. We are strategically planning for a more productive organizational structure using the guidelines of Total Quality Leadership (TQL)

TQL provides the conceptual basis for examining everything supported by the department's infrastructure, both shore-based and operational. Through a process of top-down guidance and implementation, TQL translates the present and future needs of the Navy and the Marine Corps directly into working processes. Work procedures, policies, equipment, training, and all organizational factors are worthwhile only when they add value to our ultimate customers, our sailors and Marines.

TQL focuses on the enormous power of naval leadership to foster the productive potential of our people, many of whom are stifled by the "red tape" of large bureaucracies. TQL calls for our top leaders to examine the systems supporting their organizations. Our leaders will strive less to control all decisions and enforce policy than they will to help others develop their own decision-making abilities.

Quality leaders lead their people toward even greater capabilities by investing in ongoing training and individual development. In the Navy and Marine Corps, this means our commitment to training and readiness of the operating forces. Our quality personnel will be able to meet the challenges of an unpredictable future.

CONCLUSION

Our international security environment is changing. We face a different complexion of threats throughout the world. There is still the potential for superpower confrontation with the Soviet Union. Our own naval policy and strategy are in an evolutionary stage. We are responding not only to strategic reality, but also to fiscal reality, making real reductions in our defense budget.

The challenge for the Navy and Marine Corps is to meet the defense needs of the nation in the future as we are doing today in Operation Desert Storm. We will continue our contributions to strategic deterrence, forward presence, and crisis response. We will support a strong infrastructure to reconstitute forces we might need if changes in the Soviet Union require them. Above all, we will take care of our people.

Our American way of life and the guiding direction of the new world order are at stake. The Navy and the Marine Corps must be structured to do whatever is necessary to protect our national interests around the world. Within the context of continued democratic evolution in the Soviet Union, we are committed to change and force reductions, not just for the sake of making defense cuts, but because change makes sense. We will not reduce our capabilities to the point where risk to our nation's interests becomes unacceptable. We are going about changing our strategy and force structure intelligently, so that we can respond with naval forces wherever necessary. Our Navy and Marine Corps of the future will meet these challenges. Our forces will be sufficient in quality and warfighting capability to fulfill our responsibility to the nation.

STATEMENT OF ADM. F.B. KELSO II, CHIEF OF NAVAL OPERATIONS

Senator INOUYE. Admiral.

Admiral KELSO. Good morning, Mr. Chairman, members of the committee.

First, sir, let me express my appreciation for the opportunity to appear before this distinguished committee. I would ask that my prepared statement be submitted for the record.

Senator INOUYE. Without objection, so ordered.

Admiral KELSO. I believe that each of you can take great pride for your support for our Navy's performance in Operations Desert Shield and Desert Storm. Many of the decisions made in past years were proven during this crisis.

When I was appointed as your CNO last July, I recognized that the period I would serve would be a time of historic change and uncertainty, and I can tell you these expectations have been realized.

The Navy is adjusting to the changes and we are working hard to maintain and operate the superb Navy we have today, as well as find a vision to make the correct decisions for tomorrow's Navy. My assessment is your Navy is doing well at sea this morning and has amply demonstrated its capability to establish sea control and project power halfway around the world.

Your Navy was on the scene in Southwest Asia when Kuwait was invaded and was quickly reinforced within 6 days with two carrier battle groups. This was made possible because of our Nation's policy of maintaining forward-deployed naval forces in those areas where this Nation has strategic interests.

This forward presence has also permitted in this past year rapid response by naval and marine forces to protect United States and friendly diplomats and citizens in regional conflicts taking place in Liberia and Somalia.

Our naval forces, with the help of our allies, essentially stopped all seaborne trade to and from Iraq. We built up to the six carriers you have witnessed in this conflict by the time it started. The most amazing part of the performance has been the superb motivation and quality of training by Active and Reserve officers, sailors, and marines. The high-technology equipment has certainly worked well, but the young men and women have made it all possible. Their performance in this crisis from a jump start is ample proof that the investment in maintenance, spare parts, training exercises, flying hours, and steaming hours was well worth the cost.

Realistic training is not cheap until you start measuring it in reduced lives lost in combat. In that environment, it has proven to be a real bargain.

As I look to the future, my vision is not as clear as I would like. But it is clear that the political shape of our world has changed and the threat of global confrontation has diminished. This year's budget continues a downward adjustment in the size of the Navy to reflect this change. We have additionally recognized this change in our view of how the Navy is likely to be viewed in the years ahead.

We have put on the shelf the containment strategy that has been applicable for the past 40 years. The Navy will continue to provide forward presence in many regions of the world. We will be in place to provide a stabilizing force on a day-by-day basis and be ready to surge and support U.S. interests with additional forces when required.

We approach a Navy around 450 ships in 1995 and I think this force level will support U.S. interests if the improved world situation witnessed in the past 2 years continues. I hope and pray this trend will be with us for a long time. But as Desert Shield and Desert Storm have shown, a thaw in the cold war does not guarantee political or economic stability in our world.

Substantial U.S. naval forces are likely to be needed for as far as I can see to provide presence and a stabilizing influence and to surge to deter or to participate in regional crisis. I think we must watch the events which will unfold very carefully in the months and years ahead to ensure we are traveling the right path.

SYNOPSIS OF STATEMENT

I look to the future with great hope for our children, a more peaceful world. But in my business, when it takes better than 10 years to design and build a warship, we had better be right in the choices we make. To be wrong or too hasty entails great risks for the future security of this Nation.

Mr. Chairman, it is a great honor to be serving this Nation as your Chief of Naval Operations in these challenging times. I look forward to working with this committee in the days and years ahead.

Senator INOUYE. Thank you very much.

[The statement follows:]

STATEMENT OF ADM. F.B. KELSO II

The past year has witnessed a fundamental shift in the post-World War II political and military balance. Changes in the political and security environment which were only dimly evident a year ago have come more sharply into focus in the last few months. The close of the Cold War, the unification of Germany, and our evolving relationship with the Soviet Union and its former allies in Eastern Europe have resulted in growing mutual interests with these nations on a broad range of issues. These changes have been highlighted by events in Southwest Asia, where the Soviet Union and many East European states now support the position and actions of the international coalition and the U.N. resolutions concerning Iraq.

Through perseverance and sacrifice, the United States and its allies have begun to realize the fundamental goals for Eastern Europe which we pursued so steadfastly throughout the Cold War—freedom and national self-determination. Our rapid response to aggression in Kuwait, with a major transfer of U.S. military might into the Persian Gulf region, demonstrates our continuing commitment to these principles. Unfortunately, the necessity for U.S. military operations in Panama, Liberia, Somalia, and the Persian Gulf in the past year has also proven that the end of the Cold War has not eliminated instability and the need for U.S. involvement.

Clearly, we live in a time that is fraught with both opportunity and danger. Our response to these challenges will determine, in large measure, our status as a world leader in the 21st century. It is now time to reexamine many of our earlier ground rules and assumptions. Some will remain valid, others will need to be reshaped to respond to new requirements. Elements of naval force structure, strategy, tactics, and operating patterns based primarily on the concept of global war with the Soviet Union will have to be focused on maintaining stability in many regions with economic and politically uncertain futures. One thing is clear—we must seize the initiative in responding to this new environment.

THE WINDS OF CHANGE

Today, the threat from the Soviet Union has diminished significantly. Beset by a wide range of fundamental economic and political problems, the Soviets have eased their iron grip on Eastern Europe and haltingly begun the first tentative steps toward democratization and a market economy. The military consequences are significant. It is now very unlikely that the Soviet Union could launch a conventional attack on the U.S. or its allies without an extensive period of forewarning. However, the Soviet Union's nuclear arsenal makes it the only nation capable of threatening our national existence. Both of these factors must be accounted for in our planning for the future.

In the past, we have argued strongly that we must base our plans and force structure on the capabilities of our potential foes, not on their intentions. Certainly, given the enormous amount of time and resources necessary to develop and field modern naval forces, this has been a prudent approach. Good intentions can change very quickly; capabilities do not. While we recognize the importance of the changes in Eastern Europe and hope for continued improvement in U.S.-Soviet relations, recent events in the Baltic republics and unresolved arms control issues make it prudent that we continue to hedge against possible Soviet retrenchment.

There are, moreover, other factors we must consider when developing our strategy to cope with a changing world. A growing number of countries are acquiring increasingly sophisticated military capabilities, including weapons of mass destruction and the means to employ them over great distances. We are likely to see increasing limitations on U.S. access to foreign bases. Military operations will probably include forces from our traditional allies and from nations with whom we share no alliance, but with whom we have common interests. And, finally, we must expect that fiscal pressures at home will affect the level of future defense spending.

Despite dramatic shifts in the geopolitical environment, the United States remains the world's preeminent military and economic power. However, this fact alone has not been sufficient to deter conflict. The world has not yet progressed to the point where we can count on the good intentions of individual countries and leaders to maintain peace and prosperity for all. Nor can we rely solely on the moral suasion of international law to limit aggression and illegal action. We must accept that, in a world marked by conflicting political, social, and economic systems, there will always be those who consider their interests at odds with our own. Iraq justified its invasion of Kuwait in terms of longstanding territorial claims. Throughout the world today there are many similar irredentist claims, territorial disputes, and social and religious conflicts which have the potential to erupt and threaten important U.S. interests.

STRATEGIC CONSTANTS

Regardless of the uncertainty surrounding the future, it is clear that America's fundamental goals and interests remain unchanged: to defend the United States, its people, and their interests; to contribute to a global environment of improving economic conditions; to promote political stability; and to foster individual freedom and self-determination.

Geography is another constant—the United States will remain a maritime nation, dependent upon the seas for commerce, defense, and links to its overseas allies. The Navy will, therefore, retain its traditional importance as a primary means of protecting and projecting U.S. interests around the globe.

Today, the U.S. Navy has the forces to support national policy in a superpower confrontation as well as the capability to respond immediately to even the most distant threat to regional stability. These forces represent the culmination of two decades of planning and investment and will influence strongly the structure of the Navy for the next twenty years. Our Aegis cruisers and destroyers, Trident ballistic missile submarines, modern attack submarines, aircraft carriers, and weapons such as the Tomahawk cruise missile are part of a Navy that stands at the leading edge of technology.

Technological supremacy alone, however, does not ensure security. The strength of the Navy throughout its history has been the dedication, professionalism, and quality of our people. Our requirement to recruit, train and retain the best of our nation's youth will not change as we look to the challenges of the next decade.

CHANGING U.S. STRATEGIES

In response to these fundamental shifts in the national security environment, the United States and the Navy have begun to adapt their strategies to this new set of circumstances.

A NEW DEFENSE POLICY

In his address at Aspen, Colorado on 2 August 1990, the President stated that future U.S. defense policy will be based on four major elements: Deterrence, Forward Presence, Crisis Response, and Force Reconstitution. Maritime superiority over any potential adversary remains an indispensable underpinning for each of these elements of national security.

Deterrence, both nuclear and conventional, costs less than any level of conflict, and will remain the cornerstone of U.S. defense policy. Nuclear deterrence will be required as long as any country possesses the capability to strike the United States or endanger U.S. forces abroad with nuclear weapons.

The ability to maintain capable naval forces in potential crisis areas throughout the world is essential to U.S. security. In addition to helping deter local conflict, forward deployed forces demonstrate commitment and support for our friends without having to rely on increasingly scarce overseas bases. Our ability to affect events and deter conflict is greatly enhanced by the presence of forces at the scene of the potential disturbance. Should deterrence fail, these forces enable us to respond rapidly to contain a crisis.

When crises do occur, naval forces can be positioned quickly to signal intent and support regional allies. Powerful and self-contained, they can project power ashore and influence events anywhere in the world. Just in the past year, U.S. naval forces have reacted on short notice to protect American lives and support U.S. interests in Central America, Africa, and the Persian Gulf. In Operation Sharp Edge, naval forces remained off the coast of Liberia for two months before being called upon to evacuate over 350 Americans and 1,500 citizens of other countries. In Operation Eastern Exit, forces were diverted from duties in the North Arabian Sea to rescue 260 U.S. and foreign diplomats from Somalia. And in Operation Desert Shield naval forces have provided forward presence, enforced U.N. economic sanctions, and expanded significantly the combat capabilities available to the theater commander.

An uncertain future also requires that we be able to reconstitute forces if the global situation changes once again. Fortunately, the decreased likelihood of a major conflict also provides increased strategic warning, thereby allowing us to place greater reliance upon forces maintained at lower readiness levels. For example, we plan to place 25 percent of our surface ASW forces, designed primarily for convoy escort missions, in an inactive reserve status, ready to be reactivated within 180 days.

Under these guidelines from the President, we have focused our long range force structure planning on a smaller, but still potent, Navy of approximately 450 ships. This number represents a capability to respond to regional threats against U.S. interests and a hedge against a resurgent global threat.

JOINT AND COMBINED OPERATIONS

As the size of U.S. military forces declines, greater emphasis will be placed on integrating the complementary capabilities of each of our military services to meet specific situations. Crisis response operations to protect worldwide U.S. interests will increasingly be joint in nature. The unique missions and functional capabilities of the services are intended to be complementary, enabling, and enhancing. Properly employed, joint forces provide us with the means to generate the greatest total combat capability in the shortest time. Forward deployed naval forces, for example, can arrive on scene quickly and conduct sustained operations. They provide for initial defense and play an important enabling role, covering the introduction of heavy ground and air forces. If a lodgment ashore is not available, Navy and Marine forces have the ability to seize and hold territory, opening the way for follow-on forces.

In the future, we will also place greater emphasis on the potential contributions of other nations. Collective security remains central to U.S. strategy. In the past, our primary security ties and operations centered on countries with whom we maintained formal alliances. Such alliances remain a strategic necessity, but we also may see other forms of international security cooperation. The coalition of states allied in support of Operation Desert Storm may be more representative of future security arrangements that will complement long-standing treaties such as NATO. To support growing international cooperation, we must increase our training with other navies—both to facilitate cooperation and coordination and to maintain our own expertise in likely operating environments.

EMPLOYING NAVAL FORCES

During the coming decade, deployed naval forces will still perform their traditional missions of deterrence, routine presence, and crisis response. Their ability to support U.S. interests, whether through subtle diplomacy or military action, makes them particularly relevant in a world where the maintenance of regional stability is a primary concern. However, they will increasingly be called upon to perform such missions as humanitarian assistance, disaster relief, counternarcotics operations, and peacekeeping.

It will not be easy to determine just how much presence may be required in a given region at a given time. It is clear, however, that we can no longer plan our deployments on traditional assumptions of Cold War confrontation. Reduced United States-Soviet tensions will allow greater freedom in deployment patterns and the shifting of forces among theaters in response to world events.

In the future, meeting presence requirements with fewer assets will call for full exploitation of the mobility and flexibility of our naval forces. That means changing the length and location of deployments, as well as tailoring the composition of carrier battle groups, amphibious forces, and surface action groups to specific circumstances.

Whatever the nature of our changing security environment, national decision makers will continue to rely heavily on naval forces. Because of their proximity, sustainability, staying power, independence from bases ashore, and robust combat capabilities, naval forces will be among the first called in a crisis. However, lower force levels and alternative deployment patterns will require that these forces begin moving toward potential trouble spots earlier.

REGIONAL OPERATIONS

Desert Shield and Desert Storm are unique operations in many respects and do not represent the only scenarios we could expect. For example, we were fortunate to be able to use a very highly developed port and airfield infrastructure in Saudi Arabia, which would probably not be available in other regional scenarios. We must ensure that our naval forces are flexible enough to meet the demands of an uncertain future. Operations to support regional stability will place greater emphasis on power projection—carrier air strikes, amphibious operations, and cruise missiles. At the same time, local sea control will remain a prerequisite to projecting power ashore.

Control of the air, sea, and undersea environments essential to successful military operations on land will take on a different character but certainly will be as complex as maintaining control in an open-ocean environment. Sensors and communications systems designed for blue-water operations may not work as well in confined areas, shallow seas, or over land. The threats posed by small coastal patrol boats, shore-launched cruise missiles, and shallow-water mines will present new challenges to our operators. Quick-reaction combat capabilities and the ability to maintain an accurate and timely tactical picture will be critical for operational success in these littoral areas.

Technology is changing the face of modern warfare, and the U.S. Navy is at the leading edge of this movement. Since ships and aircraft often have lifetimes of over 30 years, adapting the best of new technologies to proven concepts and platforms holds the most promise for meeting the challenges of the next decade. Developments in precision guidance, satellite navigation, cruise missiles, advanced radars, stealth technology, and worldwide communications have already been incorporated into the Navy's force structure and tactics.

We must ensure that, as technology evolves, we use it to our best advantage. The technological gap between our forces and those of our potential adversaries almost certainly will narrow, but we must never lose our comparative edge. Low observables, fiber optics, counter-stealth, improved weapon seekers, unmanned vehicles, netted high-speed computers, and advanced command, control and communications systems are some of the promising areas we are exploring.

OPERATION DESERT SHIELD AND DESERT STORM

The current conflict in the Persian Gulf region is a particularly illuminating example of the Navy's ability to respond to crisis. Since the outset of Operation Desert Shield, naval forces in the Persian Gulf region have been a major instrument for bringing international pressure to bear on Iraq. The role of enforcing U.N. economic sanctions has rested primarily upon U.S. and allied naval units, which have challenged over 7,100 ships and boarded over 860. This interdiction operation has eliminated seaborne trade to and from Iraq. When the decision was made to move a deterrent force to support Saudi Arabia and Kuwait, local sea control—an indispensable prerequisite for power projection—was established quickly by two forward deployed carrier battle groups. A review of the joint response in the first month after the invasion illustrates the contributions of naval forces.

August 2nd
Iraq invades Kuwait. Eight forward deployed U.S. Navy ships of the Middle East Force—including one guided missile cruiser, one amphibious support ship, one Tomahawk-armed destroyer, four guided missile frigates and one frigate—are on station from the opening of the operation.

August 7th
First Maritime Prepositioning Squadron (MPS) ships carrying combat equipment and stores for a Marine Expeditionary Brigade depart Diego Garcia for the Persian Gulf. Three Fast Sealift Ships are activated and ordered to report to CONUS ports of embarkation to pick up designated Army units.

August 8th
Five additional Fast Sealift Ships are activated and directed to U.S. ports of embarkation. Two carrier battle groups arrive on station within striking range of Iraq: one in the North Arabian Sea and the other in the Mediterranean.

August 9th
Afloat Prepositioning (PREPO) ships carrying Army and Air Force ammunition and supplies get under way from Diego Garcia and the Mediterranean.

August 15th
First three MPS ships arrive in the Persian Gulf.

August 17th
First PREPO ships arrive in Persian Gulfports.

August 20th
Marine Corps combat units, flown into Saudi Arabia by the Military Airlift Command, marry up with heavy equipment and supplies brought in by MPS ships.

August 23rd
Two additional carrier battle groups and a battleship arrive on station.

August 27th
Fast Sealift Ships begin to arrive, providing equipment for major elements of an Army mechanized division and an infantry brigade.

September 5th
A U.S. Navy Amphibious Ready Group arrives in the area with its embarked Marine Expeditionary Unit.

While it is still too early to reach any final conclusions about the performance of naval forces in Operation Desert Storm, several preliminary observations can be made. The ability of the Navy to augment the eight ships of the Middle East Force with two carrier battle groups within days of the invasion of Kuwait validates our strategy of forward deployment. This presence guaranteed free use of the seas for the vast amount of men and material which has followed. In addition, the Maritime Prepositioning Squadron ships in the region enabled the Marine Corps to put a significant deterrent force on the ground in Saudi Arabia within two weeks of the Iraqi invasion. In short, U.S. naval forces helped provide for the introduction of airborne forces, tactical air forces, and heavy ground units to the region.

Once the conflict began, the ability of naval forces to integrate with other services and allies to project power and to affect events ashore added a critical dimension to the coalition effort. In particular, the ability of U.S. carrier aircraft to assist in the establishment of air superiority and to bring accurate and lethal firepower to bear throughout the theater of operations has been a key part of the coalition response to Iraqi aggression and has provided a significant share of the coalition's strike capability to date. Additionally, the accuracy and range of the Navy's Tomahawk cruise missiles has added a new dimension to naval warfare and has enabled ships and submarines to complement effectively our strike aircraft.

Throughout the entire operation, it has been clear that the motivation, training, and quality of our people provided us a critical edge. More than any weapon system, the outstanding performance of our men and women have been the success story of Operation Desert Storm. From time to time, we discuss whether the emphasis we place on readiness and training can be reduced in order to save funds. If there has ever been a clearer justification of this commitment to readiness than our success in Operation Desert Storm—the effective interdiction of Iraq, the rapid attainment of air supremacy, the close coordination of Tomahawk strikes, and the low attrition of our aircraft—I am not aware of it. I am absolutely convinced that the dollars we invest in realistic training, especially for steaming days and flying hours, reaps enormous benefits in lives, material, and overall combat capability. The current conflict in Southwest Asia is simply the latest example which proves this point.

WHAT IS THE WAY AHEAD?

To maintain our hard-earned position as the most modern and capable naval force in the world today, we must meet the following near-term requirements:

—We must ensure that the forces we plan for the next decade are affordable in a era of diminishing defense funding.

—We must ensure that the forces which will replace our present ships and aircraft are capable of performing required missions.

—We must maintain an adequate industrial base to ensure efficient procurement and maintenance of the next generation of platforms and systems, and adequate shore infrastructure for surge capacity in times of conflict.

—We must ensure that we keep our technology advantage.

—And we must maintain the quality of life and high morale of our people.

These are formidable challenges. Nonetheless, the Department of the Navy is pursuing a number of specific measures which will provide us with a clearer picture of the way ahead.

The fiscal realities of the 1990s have made the development and acquisition of affordable weapon systems and platforms an increasingly important factor in sustaining our maritime strength. We also are refocusing leadership and management efforts to help us reduce the costs of operating our forces. We have begun the implementation of Total Quality Leadership (TQL), an approach already widespread in many areas of the naval shore establishment and some areas of civilian industry, to improve our use of the contributions made by our intelligent and innovative people. We strive to improve the quality of life and work throughout the Navy.

We must make these changes with a cautious eye toward the need to maintain overall quality in our investment in people and equipment. We can neither retain our people nor operate safely unless we maintain a continued commitment to quality in the work place, both at sea and ashore. Equally important is the need to train our people in realistic, challenging environments. We intend to do this by increasing our reliance upon simulators and shore-based trainers while continuing to support an acceptable level of training at sea and in the air. Our recent successes in Operations Desert Shield and Desert Storm are a direct result of the training we have provided our young men and women.

We must never forget that naval operations take place in an inherently dangerous environment. We are working hard to address the hazards associated with our profession. The number of naval personnel who died in operational accidents declined almost 30 percent from 1989 to 1990, while the fiscal year 1990 aviation accident rate of 1.96 per 100,000 flight hours was the lowest on record. Nevertheless, we will not be satisfied until our safety record is perfect.

KEY COMPONENTS OF MARITIME SUPERIORITY

To meet the demands of our national security strategy, we need naval forces that possess a wide range of capabilities. These must include: sea-based strategic forces, for continued deterrence of nuclear attack; surge forces that can react rapidly to any crisis; forward-deployed expeditionary forces capable of going anywhere, with full logistic, medical, and repair support; and a sea-based maritime prepositioned force.

The Navy's ballistic missile submarines are an integral element of the U.S. nuclear triad. A force of eighteen Trident submarines will provide a survivable, cost effective nuclear response capability well into the next century. Similarly, U.S. attack submarines provide both nuclear and conventional deterrence by countering sea-based platforms that might threaten the United States or its allies. We must continue to maintain our strong technological edge in the critical areas of ASW and submarine operations. This does not require a massive building program. Maintaining our current SSN force through its programmed service life, together with a construction program adequate to maintain our industrial base for building submarines, will meet this requirement in the short term.

The centerpiece of our balanced power projection forces remains the carrier battle group. Each battle group is composed of an aircraft carrier, surface combatants, and possibly one or more nuclear attack submarines. These forces are supported by combat logistic ships, land-based maritime patrol aircraft, and sophisticated space-based surveillance and communications systems. They can be ready on short notice to conduct full combat operations anywhere in the world. We will need a force of at least twelve carriers and about 150 surface combatants to meet future requirements for forward presence and to provide additional surge capability in a crisis. During the next several years, we will reduce our forces to these levels.

The growing threat posed by the spread of high technology weaponry means that we must rely even more heavily on our technological advantages. Today, our operational commanders have an extensive menu of both complex and traditional weapons from which to draw. As the overall number of Navy ships declines, we intend to offset some of the limitations of a smaller force structure by advances in weapons technology which will enable us to use an increased number of platforms as instruments of long range striking power. This distribution of firepower is best illustrated by the Navy's introduction of cruise missiles, which can be launched from a number of air, surface, and subsurface platforms.

Naval forces also have the capability to influence events ashore by employing the flexible assault capabilities of our amphibious forces, which are built around Marine Air Ground Task Forces (MAGTF) Each MAGTF, regardless of its size, is a task organized, self-sustaining, fully combat capable unit which may be deployed in amphibious ships or airlifted to rendezvous with prepositioned equipment, supplies, and ammunition.

In recent years, we have focused considerable effort on mine countermeasures. Our helicopter and surface mine countermeasures (MCM) forces have made great strides, but new mine technology is proliferating rapidly. We cannot ignore the potential threat a dedicated mining effort would pose to our operating forces and our critical sea lanes. A force of fourteen modern surface mine countermeasures ships and planned mine-hunting ships will be a vital part of America's balanced naval force for the next decade.

Sealift and afloat prepositioning of heavy combat equipment and supplies are absolutely vital for sustained power projection operations. Responding to the invasion of Kuwait presented a particularly demanding challenge due to the lack of strategic warning, immense distances involved, and the sheer size of the U.S. forces and material which had to be moved. Nonetheless, during the first 6 months of Operations Desert Shield and Desert Storm, U.S. strategic sealift, augmented by chartered commercial ships, moved over 2.1 million tons of combat equipment and supplies.

There is no single solution to the requirement for strategic lift. Airlift, prepositioning, rapid response sealift, reserve augmentation shipping, and the availability of ports and airfields at debarkation points are all elements of the entire picture. A Congressionally Mandated Mobility Study of airlift, sealift, prepositioning, and amphibious lift requirements is presently under way. In coordination with this effort, the Navy is developing options for additional roll-on/roll-off (RO–RO) capability and is also developing plans to acquire new construction and/or commercially available ships, pending the study's results.

In addition to highly capable active forces, we will also need trained and qualified reserve forces to buttress active units in times of war or national emergency. Today, the value of a ready reserve component is being demonstrated dramatically in Operation Desert Storm. Navy Reserve personnel have responded superbly, and are integrated fully to support our forces in Southwest Asia.

MORE THAN NUMBERS

The smaller Navy described above reflects a 25% decrease from the 600-ship Navy that was identified during the 1980s as the minimum force needed to counter a growing Soviet capability. It also represents an 18% decrease in the size of the current U.S. Navy. The current evaluation of a diminished Soviet threat permits meeting America's requirement for maritime superiority with smaller naval forces.

This is not, however, a risk-free strategy. There should be no doubt that, if the continued decline in Navy funding, force structure, modernization, and personnel persists, we will reach a point where this nation will no longer be capable of maintaining the maritime superiority so vital to the support of our global interests. In pursuing this path, we must evaluate carefully America's requirements for national defense and, in particular, for naval forces. From today's perspective, I must conclude that we should not drop below the 450 ship level we will reach in 1995. To do so would seriously jeopardize our ability to maintain maritime superiority.

With a smaller Navy force structure, we will find it increasingly difficult to maintain the wide balance of capabilities required to counter sudden, unexpected geopolitical challenges and newly emerging threats. Moreover, these forces will be unable to support a regional crisis or conflict for more than a few months without major departure from preferred rotation and deployment policies.

Our people remain the strong foundation upon which our maritime strength is built. We must continue to attract and retain the best of our nation's youth. To do that we have to operate our force in a way that provides our sailors and Marines a decent, realistic quality of life—beginning with stable sea-and shore-rotation patterns. Current guidelines concerning the time sailors are away from home port must be followed, with only temporary disruptions for crises or national emergency, even while force structure shrinks.

There are, however, other issues that are just as important to our sailors. As we reduce the size of our active forces, we must be careful not to draw down our personnel too quickly. Large involuntary releases hurt morale and will make it more difficult to recruit high quality personnel. Our people must receive sufficient basic and advanced training in a realistic environment to inspire confidence in both themselves and their shipmates. While serving their country, they deserve ships, submarines, and aircraft which are well-maintained and combat ready—with sufficient time and funds being allocated for periodic overhaul and maintenance.

The prospect of a global war between NATO and the Warsaw Pact has diminished and the world is undergoing a period of rapid change. Although we do not yet know where these changes will lead, we are unlikely to see a return to the fear of immediate military confrontation between the two superpowers. This is not, however, an invitation to return to isolationism. America's enduring worldwide interests require that we remain involved in the international arena. Our task is to maintain the constancy of purpose that brought about a favorable resolution of the Cold War while shifting our focus and attention to a more diverse set of challenges.

In the years ahead, our nation's leaders will still find naval forces just as useful, necessary, and important as they have been so often during the Cold War. In peacetime, crisis, or conflict, naval forces will continue to serve our nation and our national leadership. Our ability to refocus our efforts upon the changing requirements of the next decade will determine how well we meet the challenges before us.

APPENDIX

BUILDING THE FUTURE FORCE—THE FISCAL YEAR 1992–93 NAVY BUDGET

The U.S. Navy of the 1990s will be a force evolving along with U.S. national security strategy. It will have the capability to counter regional threats to U.S. interests and the ability to reconstitute in the event of global war. This force will necessarily grow smaller, responding to national priorities in a changing international environment. The Navy budget for 1992 reflects the prudent adjustment of naval forces necessary to maximize the investment already made, while accounting for the changes taking place in the world and our nation's financial realities.

We will reduce the size of the Navy to a balanced fleet of about 450 ships by 1995. It is a highly capable force considering the world environment, our federal budget goals, and the maritime nature of our nation. The following table contrasting fiscal year 1987 Navy force levels with those planned for fiscal year 1992 illustrates the significant drawdown in naval forces over a five year period.

	1987	1992
Strategic Forces: SSBN	37	29
Combatant Forces:		
Aircraft carriers [1]	13	12
Attack submarines	102	88
Amphibious ships	64	62
Surface combatants	222	151
Patrol combatants	6	6
Mine countermeasures	4	13
Combat logistics	56	53
Support forces: Support ships	55	62
Total	559	476

[1] This figure does not include carriers undergoing SLEP or nuclear recoring.

It should be noted that Operation Desert Storm will necessarily affect the timing of our ship inactivations. For example, current plans to retire both remaining battleships and the aircraft carrier USS *Midway* by the end of fiscal year 1991, as well as to convert USS *Forrestal* to a training carrier (AVT) in the same period have been put on hold. Once hostilities in the Persian Gulf theater cease, we will move to complete these actions as soon as possible.

The requirements for a balanced Navy are derived from a number of calculations but, in the final analysis, they are predicated on the assumption that the United States will maintain the capability to protect its interests abroad. In peacetime, we have routinely deployed up to 30% of our available forces. That level of deployment provides a naval peacetime, we have routinely deployed up to 30% of our available forces. That level of deployment provides a naval presence in areas of potential conflict, as well as an ability to surge forces from the U.S. for crises or regional conflict. It also enables us to maintain our weapon systems, ships, and aircraft and to train our people. It also provides a reasonable balance of time at sea and in port for our sailors.

DEPLOYMENT CONSIDERATIONS

If we wish to increase our presence in a region, the percentage of the force deployed can be increased or forces can be drawn from other areas. However, as the percentage of the fleet which is deployed increases, we reduce our flexibility to surge forces and begin to constrain the time available for necessary maintenance. The impact of increasing deployment percentages for a typical ship over a thirty-six month period can be seen below:

Percent deployed	Months—		
	Deployed	Underway	Out of homeport
30	11.0	15.0	17.0
35	12.5	16.0	18.0
40	14.5	17.0	19.5
45	16.0	18.0	20.5

Note that time spent underway or away from homeport does not equate to time on station in the region of potential crisis. Transit time takes up 30–35% of the time for a ship deploying to the Indian Ocean, approximately 15% of a deployment to the Mediterranean, and about 17% of a deployment to the Western Pacific. For planning purposes, we use 25% as a historical guide for transit time computations.

Additionally, there is a periodic need to modernize and repair weapons systems and platforms. On average, 15% of the force is undergoing major maintenance and modernization at any given time. Based on the percentage of naval forces deployed and the transit time from their homeports, it is possible to determine the overall deployment and response capability of a given naval force.

FORCE CALCULATIONS

With a force of 12 aircraft carriers, the deployment of about 30% of the available force a peacetime tempo of operations—sustains between two and three carriers forward deployed for presence and immediate crisis response. Increasing the percent of the force forward deployed to 40% sustains about three carriers on station full time. Increasing to 45% would enable us to dedicate three carriers continuously to a regional conflict and surge an additional carrier to another theater if required.

PROMOTING REGIONAL STABILITY

In addition to the carriers described above, deploying approximately 30% of a force of 450 ships can support deployment of 14 SSNs, between two and three Amphibious Ready Groups and 25 to 30 other surface combatants. These ships can be configured into a wide range of task forces tailored to specific circumstances which can be dispersed within a theater of operations as desired.

For our national decision makers, this force level means that an Amphibious Strike Task Force (1 Carrier Battle Group (CVBG) and 1 Amphibious Ready Group/Marine Expeditionary Unit (ARG/MEU)) could arrive at an area of crisis anywhere in the world in less than 7 days—with a second carrier arriving in less than 15 days and a full Marine Expeditionary Brigade (MEB) on station in less than 30 days. The importance of this capability was highlighted by the initial naval response to the Iraqi invasion of Kuwait, where naval forces were one of the major deterrents to an invasion of Saudi Arabia.

RESPONDING TO REGIONAL CONFLICTS

Should hostilities which involve U.S. forces break out or should we wish to bring greater power to bear on a potential adversary, we could increase the number of deploying forces to 40% of our total inventory. At this level of effort, we could have 3 carriers on station in less than 25 days. In less than 30 days, we could also deploy an entire Marine Expeditionary Force into theater using a combination of amphibious ships, airlift, and Maritime Prepositioning Ships. However, making a carrier available for a simultaneous crisis in another theater would probably require deploying greater than 40% of the force. It should be noted that, as the size of the Navy decreases, we will not be able to forward deploy as many forces as we do today without having an immediate adverse effect on maintenance and training and, over time, on the retention of our sailors.

HEDGING AGAINST GLOBAL CONFLICT

We currently estimate that we would have significant strategic warning of a global conflict which would allow sufficient time to reactivate decommissioned vessels and complete the construction of new ships on the building ways. The Innovative Naval Reserve Concept (INRC) is an example of the flexibility which this increased warning time allows. This new initiative for the 40-ship FF–1052 *Knox* class of ASW frigates re-designates 8 ships as FFT training platforms while placing the remaining 32 in a 180 day Reduced Operational Status (ROS). All of these ships, manned by reservists, could be brought back into service and trained for fleet ASW missions in the event of a major war. The purpose of this program is to protect our investment in these very capital intensive resources, and allow reconstitution of forces which would otherwise take years to build. In addition, it will also increase the level of readiness and training for the Selected Reserve crews of these ships.

MODERNIZING THE FORCE FOR THE FUTURE

We have already begun building toward a balanced force which can meet all of these contingencies. It will be smaller, but we cannot afford for it to be less capable. Older ships and aircraft are being retired at the end of their service lives—some even sooner in cases where the cost of their maintenance and upkeep is disproportionate to their utility. These platforms will be replaced by fewer but more capable ships and aircraft. Many of our ongoing programs represent incremental improvements over existing, proven platforms and weapons systems. Some, however, represent significant technological advancements and will define the force of the future.

CARRIER FORCE LEVELS

We expect to reach a force of 12 deployable aircraft carriers in October 1991 with the scheduled retirement of USS *Midway*, which will be relieved in Japan by USS *Independence*. In addition, USS *Constellation* will be in Service Life Extension Program (SLEP) and USS *Enterprise* will be undergoing a nuclear recoring overhaul. USS *Lexington*, after a long and illustrious career, will be replaced as the Navy's training carrier (AVT) by USS *Forrestal*. As stated earlier, Operation Desert Storm may impact the timing of these scheduled transfers.

CARRIER AIR WING OF THE FUTURE

The carrier battle group and its airwing will remain the primary force for power projection and the centerpiece of a balanced fleet. Maintaining its technological edge is of paramount concern. The current carrier air wing is a highly capable multi-purpose force as proven in Operation Desert Storm. The carrier aircraft of today will continue to be deployed through this decade and into the 21st century. However, we must begin now to design replacements in order to avoid block obsolescence as today's aircraft reach the end of their service lives.

Attack aircraft.—The cancellation of the A–12 will require us to maintain the aging A–6 for a longer period than the Navy had previously planned. This will be accomplished by modernizing and re-winging the A–6 under the SWIP–1A Program. We are currently working with the Office of the Secretary of Defense to structure a program to provide naval aviation with the modern air wings which will be required in the 21st century. We envision that these air wings will consist of a new all-weather attack aircraft with stealth capabilities, together with an improved version of the F/A–18 which will have increased range, survivability, payload, and under-the weather targeting capability. As soon as these programs are approved, we expect an amendment to the current budget to be submitted by the Office of the Secretary of Defense.

Air superiority.—Air supremacy was gained early in Operation Desert Storm due primarily to the superior training and readiness of our air crews and the technological superiority of U.S. aircraft. The Navy's primary air superiority fighter remains the F–14 TOMCAT, which will be replaced by an improved version of the F/A–18 when the F–14 phases out in the next century. The development and procurement of a new generation fighter aircraft will be pursued after procurement of the A–6 replacement. It does not appear affordable to procure both a new fighter and attack aircraft at the same time. We will continue to buy the F/A–18 at the maximum rate affordable in order to provide sufficient aircraft to fill carrier decks in the future as older aircraft leave the inventory.

Electronic warfare aircraft.—Current EA–6B aircraft will be remanufactured to extend their service life. We are also proceeding with a modernization program to upgrade this aircraft's electronic warfare and strike support capabilities.

Airborne early warning.—The E–2C HAWKEYE aircraft added to the airwing over the next few years will be configured with the APS–145 radar and will significantly improve the early warning and command and control capabilities of the battle group. Again, we are carefully investigating follow-on options for the capabilities provided by the E–2C and EA–6B.

MARITIME PATROL AND ASW AIRCRAFT

In the absence of a follow-on long range maritime patrol aircraft, we are faced with the need to move quickly to improve our existing MPA force. Our present P–3 force provides the multifaceted, long-endurance surface surveillance capability that is necessary in maritime blockade and regional conflict scenarios such as Operation Desert Shield and Desert Storm. It also provides a long range counter to enemy surface ships and an ASW hedge against the existing Soviet and Third World submarine capability.

The SH–60B (LAMPS MK III) and the SH–60F helicopters provide improved organic ASW and anti-surface capabilities to our surface combatants and battle groups. Procurement of 9 HH–60H helicopters in fiscal year 1992 and 7 in fiscal year 1993 addresses a longstanding need for a survivable organic SAR capability for the battle group.

JET TRAINER PROGRAM

We are continuing to modernize our fleet of training aircraft with the purchase of the T–45 fixed wing jet trainer. As the TA–4 jet trainer currently in use reaches the end of its service life, the T–45, along with its associated simulator and maintenance packages, will provide our carrier based naval aviators with the finest training available. We plan to procure 12 of these aircraft in both fiscal year 1992 and fiscal year 1993, 36 aircraft in fiscal year 1994, and 48 aircraft per year from fiscal year 1995 through fiscal year 1997.

AIRCRAFT PROCUREMENT PLAN

Aircraft	Fiscal year—		
	1991	1992	1993
EA–6B PROWLER (Electronic Warfare)	1	....	3
AV–8B HARRIER (Attack)	24	....	....
F/A–18 HORNET (Strike/Fighter)	48	36	[1] 20
CH/MH–53 SEA STALLION (Helo)	....	20	20
AH–1W SUPERCOBRA (Attack Helo)	....	12	12
HH–60B SEAHAWK (Combat Rescue)	....	9	7
SH–60B SEAHAWK (Escort-Based ASW Helo)	6	12	12
SH–60F SEAHAWK (CV-Based ASW Helo)	18	12	12
E–2C HAWKEYE (Surveillance)	6	6	6
T–45 GOSHAWK (Trainer)	....	12	12
Total aircraft	103	119	104

[1] Final number is pending a decision by the Office of the Secretary of Defense and will be included in the amended budget submission.

SUBMARINE FLEET OF THE FUTURE

Trident.—The final Trident ballistic missile submarine was funded in fiscal year 1991, completing the most modern, survivable, and flexible leg of our nation's strategic triad. With the Trident II (D–5) missile now at sea, we also have a weapon which can be employed with pin-point accuracy against even the most hardened target. Although we will not backfit the D–5 missile into early Ohio Class SSBNs, our strategic nuclear deterrent force remains strong and reliable and will serve us well into the next century.

SSN-21.—Our attack submarine force consists of *Los Angeles* Class SSNs and the remaining *Sturgeon* Class SSNs which were SSN–21. Our attack submarine force consists of *Los Angeles* Class SSNs and the remaining *Sturgeon* Class SSNs which were built during the 1960s. These submarines have performed magnificently and are highly capable, but they contain little room for today's more modern systems. We plan to build at least one *Seawolf* Class SSN per year to replace these ships as they reach the end of their safe service lives and to keep pace with improvements in the Soviet submarine fleet. Additionally, we are commencing a study effort to define new, lower cost options for a successor to the *Seawolf*. While affordability will be a major consideration, this follow-on SSN must be capable of maintaining our edge in ASW against projected 21st century threats.

SURFACE FLEET OF THE FUTURE

The United States will rely increasingly on flexible and mobile surface forces to protect our national interests and ensure global stability in the future international environment. The future surface fleet will consist of technologically sophisticated ships capable of operating across the full spectrum of independent and battle force missions. These surface forces will ensure our continued access to critical sea areas, will be capable of projecting power ashore, and will be able to defend themselves against technologically advanced threats.

Our shipbuilding program has decreased significantly from earlier years. We are now building an average of 5 combatants and 4 amphibious/support ships per year, compared to the average of 9 combatants and 8 amphibious/support ships built per year in the 1980s. Despite these lower numbers, we are building toward a force composed of individually more capable ships. From the outset, however, it is essential that we understand that this 8 ship/year building rate, coupled with a notional 35 year service life, could reduce us to a Navy 50 percent of the current size within a few decades. Careful management of current assets and future investments will be needed to assure maintenance of sufficient force levels to meet national requirements. Current procurement plans provide for continued—though much slower—modernization in ASW, general purpose, amphibious, and minesweeping forces, as well as oceanographic research ships.

DDG-51.—The *Arleigh Burke* (DDG-51) class is the Navy's second class of Aegis surface combatant. It contains significant technological advances over previous destroyers, which will enable it to deal with more advanced threats. Although budgetary constraints have caused us to reduce the projected construction rate from previous years, the current plan continues the procurement of the DDG-51 Flight II as the primary replacement for the DDG-2 and DDG-37 classes. This is a reduction in modernization plans from those agreed to in the Major Warship Review, which had programmed a follow-on DDG-51 Flight III with an integrated ASW helo capability.

Combat logistics.—The new AOE-6 class Fast Combat Support Ship significantly enhances our ability to sustain deployed carrier battle groups. Although the reduced AOE-6 shipbuilding plan will not allow us to achieve the original goal of one AOE per battle group, we plan to satisfy CVBG deployment needs in the near term by substituting the combination of an AE and an AOR/AO/TAO for the AOE. To help meet future requirements, we will continue to "jumbo-ize" the AO-177 CIMARRON class oilers, adding a significantly upgraded refueling capability as well as the ability to carry a limited amount of ammunition.

Amphibious lift.—Our amphibious lift proved itself capable and ready in the deployment to the Persian Gulf of the largest amphibious task force since the Inchon landing during the Korean War. As a part of overall force reductions, amphibious forces capability will be gradually reduced to support 2.5 Marine Expeditionary Brigades. In fiscal year 1992 and fiscal year 1993, we will see the final two hulls of the LSD-49 (cargo variant) fiscal year 1992 also contains the last 12 LCAC's needed to fulfill our requirement for high-speed over-the-horizon amphibious assault. Additionally, planning is on track for fiscal year 1995 procurement of the first LX, a follow-on ship scheduled to replace the LPD class which is nearing the end of its effective service life. A final major planning change in the area of amphibious lift is our decision to halt the LHD program with the construction of LHD-5 in fiscal year 1991.

Mine warfare.—The MCM-1 AVENGER is the first of a new generation of Mine Countermeasures ships designed to replace the aging MSO class ships. The Avenger class embodies significant technological advances in minehunting and mine neutralization. In addition to completing construction of the AVENGER Class, we are building the MHC-51 OSPREY Class coastal minehunter. We are planning a surface MCM program of 14 MCM1's, 12 MHC's and 8 MHC(V)'s, which are deployable versions of the MHC.

SHIP CONSTRUCTION PROGRAM

Class	Fiscal year—		
	1991	1992	1993
SSBN 726 OHIO-class (TRIDENT Ballistic Missile Submarine)	1		
SSN 21 SEAWOLF-class (Attack Submarine)	1	1	1
DDG 51 ARLEIGH BURKE-class (AEGIS Destroyer)	4	5	4
LHD 1 WASP-class (Amphibious Assault Ship)	1		
LSD 41 (CV) WHIDBEY ISLAND-class (Cargo Variant Dock Landing Ship)	1	1	1
MHC 51 OSPREY-class (Coastal Mine-hunter)	2	2	2
TAGOS 23-class (Ocean Surveillance Ship)			1
AOE 6 SUPPLY-class (Fast Combat Support Ship)		1	
TAGS/AGOR (Oceanographic Research Ships)		2	2
Sealift		(1)	(1)
LCAC (Landing Craft Air Cushion)	(12)	(12)	
Total ships	10	12	11

(1) Dependent upon results of the Congressionally Mandated Mobility Study (CMMS)

It is more important than ever to maintain the forward momentum of our shipbuilding program. The industrial base and secondary vendor base of this vital industry are shrinking dramatically. The Navy now provides over 96% of the income of the U.S. shipbuilding industry. We have entered an era where we may no longer have the industrial capacity to rebuild a fleet in time of crisis. We must maintain sufficient construction to provide a capable fleet over the long term.

STRATEGIC SEALIFT

The prudent investment of over $7 billion in Strategic Sealift modernization during the 1980s played a vital role in the rapid and timely response of sealift to Iraq's invasion of Kuwait. Desert Shield and Desert Storm typify the kind of rapidly evolving regional crisis response we can expect in the post-Cold War environment and highlight the need to review our strategic lift capabilities and take appropriate action in support of national sealift policy. Our budget contains $1.2B over the fiscal year 1992–97 period for procurement of sealift ships. The exact ship numbers and types will be determined by the Congressionally Mandated Mobility Study (CMMS) We are examining options to build or buy additional roll-on/roll-off ships for the Ready Reserve Force (RRF) if the CMMS should so recommend.

SPACE AND ELECTRONIC WARFARE

Recognizing the need for a coherent approach to the integration, management, and tactical employment of our surveillance, targeting, communications, and electronic warfare systems, we have established Space and Electronic Warfare (SEW) as a primary warfare mission area. SEW incorporates space assets, command, control, communications (C3), C3 countermeasures (C3CM), and electronic warfare to maximize our technological superiority and to improve our ability to operate and fight together with allied and joint forces. It also encompasses information warfare and seeks to assure communications between tactical, space, surveillance, and strategic warfighting systems.

As high technology weaponry and sensors become more available to Third World nations, they will gradually improve their ability to integrate and tactically employ these advanced systems. The integration of SEW into force-wide designs and tactics seeks to safeguard our offensive and defensive abilities against a widening range of threats.

OCEANOGRAPHY

We continue to modernize our oceanographic data collection, assimilation and dissemination systems to keep pace with the demands of our Navy's new technology. We will maintain a vigorous, deep ocean survey program since bathymetric and gravimetric data are essential to the operations of our tactical and strategic weapons systems. One of our coastal survey ships is presently employed in inshore survey operations for Operation Desert Storm. More efficient technology is also being incorporated into the new Coastal Hydrographic Survey Ships, USNS *McDonnell* and USNS *Littlehales* which are being purchased in fiscal year 1992–93.

NAVY MANPOWER

There is no investment of defense dollars from which more gain is realized in the near term or over time than our investment in people. Hardware and platforms depreciate with age, becoming increasingly expendable with obsolescence. Our people, on the other hand, gain increasing value throughout their careers. At no time in recent history has the investment of our nation in Navy men and women been so vividly displayed to the world as in the execution of Operation Desert Shield and Desert Storm.

In times of force reductions it is crucial that we keep the well-being of our men and women in sharp focus. As we draw down our personnel levels to 510,000 by the end of fiscal year 1995, we must minimize the number of professional servicemembers who are involuntarily separated. At the same time, we must maintain a suitable quality of life for those people who continue to serve their country. If we exclude personnel in transit or training, then 70 percent of our enlisted force is either at sea or assigned to overseas shore duty. Accordingly, it is essential that we apply future budgetary reductions carefully in order not to decimate the number of CONUS shore billets available for our sailors.

QUALITY OF LIFE

We are continuing to pursue those personnel programs and initiatives that have paid off so handsomely in the past, including more and improved family housing, child care centers, medical care, and base maintenance and support. To keep our ships and aircraft squadrons fully manned we must provide a working environment that is as safe and comfortable as possible and ensure that the families of our sailors are taken care of during their absence at sea. Additionally, we must also attend to the spiritual well-being of our forces through a variety of religious, counseling, and support programs.

A fair compensation package is essential to supporting our sailors and their families, and is an important tool in attracting and retaining the kind of high quality people that we need. Unfortunately, military pay raises have lagged significantly behind private sector wage growth during the last decade. As we move toward a smaller force, it is important that we send the right signal of support to our men and women in uniform. I strongly support the 4.1 percent pay raise requested in the budget.

We also continue to strive for a better sea/shore rotation schedule which provides an opportunity for our people to expand their professional horizons. Throughout this period of dynamic change in the Navy, the cornerstone of our personnel programs remains our unrelenting commitment to professionalism—a commitment that has paid off handsomely in the performance of our forces in the Middle East.

OPERATION DESERT SHIELD AND DESERT STORM

The realities of Operation Desert Shield and Desert Storm require extended family separations for our servicemembers. As a result of a concerted effort over the last decade, our system of family support on the home front has dramatically increased. This system is composed of a variety of organizations including Family Services Centers, Dependents' Assistance Boards, ombudsmen organizations, chaplains, wives clubs, and command support groups. We are making every effort to provide a support system that is responsive to the needs of our families during this period of increased stress.

OFFICER ACCESSIONS

As force reductions are initiated, accession levels will be decreased proportionately. The Navy will meet Department of Defense guidance to reduce the size of the service academies, and the size of the Naval Academy brigade will decrease from the currently authorized total of 4,525 Midshipmen to less than 4,000 by 1995. We will also meet Congressional requirement to reduce the class entry size of the entering class to 1132 by July 1991.

NROTC accessions will also be reduced over the next several years, with accessions declining from the current level of 1,600 to 1100 in fiscal year 1995. Failure to adjust the NROTC program overhead would have resulted in smaller, less viable units and an unacceptable increase in the cost per NROTC commission. Consequently, the number of NROTC units will be reduced from 66 to 53, a reduction that keeps the Navy's ROTC production in balance with accession goals and scholarships.

SELECTIVE EARLY RETIREMENT

Faced with the requirement to reduce our officer strength rapidly while preserving reasonable career opportunities for our junior officers, we have very reluctantly formed Selective Early Retirement (SER) boards to identify captains and commanders for early retirement. Using the procedures specified in DOPMA, the first in a planned series of these boards convened in December 1990 and selected 442 officers to retire no later than 1 August 1991. Though a painful process, it is much preferred to forcing mid-career officers out of service.

RECRUITING

A key element of Navy manpower strategy has always been to recruit and retain those young men and women who are intellectually, morally and physically most capable of doing the job. It is essential that the caliber of the young people we recruit into the Navy be progressively improved as we drive toward a smaller and more technologically advanced force. Our goals are high—we seek at least 95 percent high school graduates, 60 percent of all recruits from upper mental groups, and zero mental group IV recruits. The payoff of our past investments in quality is apparent in the fleet today. We are experiencing lower remediation rates in boot camp, less attrition from technical training, higher advancement rates, and lower desertion rates, all as a result of our commitment to quality. This enduring commitment to attract and retain the highest quality personnel will enhance our readiness to meet any future threat.

NAVAL RESERVE FORCE

RECALL

The performance of our reserve personnel in Operation Desert Storm validates the Naval Reserve as a critical link in our Navy's crisis response effort. When called, Naval Reservists have reported for duty trained and ready—filling virtually all requirements for reserve augmentation.

The number of reservists recalled has grown rapidly during recent weeks, with significant numbers of those individuals scheduled to deploy to the Persian Gulf region. With the current CNO recall authorization standing at over 32,700, we have actually recalled, as of 7 February 1991, over 18,300 Navy Selected Reservists. Over half of those recalled have been Naval Reserve medical personnel. Many provided the "backfill" needed to sustain patient care capability at CONUS medical treatment facilities. Others were called up with the activation of two Naval Reserve fleet hospitals, while still others have augmented the hospital ships MERCY and COMFORT, enabling them to double their patient care capability to 1,000 beds each. The balance of the recall has involved the full spectrum of reserve units, including: Mobile Inshore Undersea Warfare, Mine Warfare, Military Sealift Command, Naval Control of Shipping, Intelligence, SEALS, Chaplains, Public Affairs, Strike Rescue, Cargo Handling, Seabees, and Ship Augmentation. Additionally, four reserve transport squadrons have been recalled to support airlift of personnel and cargo in the operational theater.

NAVAL RESERVE REDUCTIONS

The ongoing reduction in active force structure will cause a corresponding reduction in Naval Reserve manpower levels. Selected Reserve numbers, which include both SELRES and TAR manning levels, will see a reduction from fiscal year 1991 force levels of about 12 percent, to a total of approximately 134,600 in fiscal year 1992. These reductions are driven by a combination of changing requirements and reduced active force structure.

NRF SURFACE FORCES

The increased warning time provided by a reduced Soviet threat enables us to expand the use of Naval Reserves through the Innovative Naval Reserve Concept (INRC) which was described earlier. The INRC will achieve a significant savings compared to current FF-1052 costs. This program preserves force structure and allows reconstitution to full capability in a mobilization scenario. Additionally, NRF mine warfare forces are being significantly modernized by the addition of new MHC's.

NAVAL RESERVE AVIATION

Our two reserve carrier air wings remain ready and highly capable forces. Today's less immediate Soviet submarine threat has enabled the size of the Maritime Patrol Aircraft to be changed from 24 active/13 reserve squadrons to 18 active/9 reserve squadrons. In addition, squadron aircraft allowances have been reduced to 8 aircraft for each active and reserve squadron rather than the previous 9 aircraft. We no longer maintain the Squadron Air Augmentation Unit program, which augmented active fleet squadrons with reserve personnel. Other reductions include the deletion of the two Reserve Aerial Mine-Countermeasure (HM) squadrons and one of the three Reserve LAMPS MK I squadrons.

MEDICAL CARE

In planning for the future, we have made a commitment to ensure the continuing well-being of Navy medicine, realizing full well that it directly affects not only our active duty forces and their medical readiness, but also the entire community of retirees and families of active duty personnel. As manpower and force structure have been reduced in the current budget, we made a deliberate decision to protect funding for Navy medical personnel and programs, in order to maintain and improve medical care for our people and their families. This is a critical readiness and quality of life issue that must remain in the forefront of future planning, as it is inextricably linked to our ability to quickly respond to contingencies such as Operation Desert Shield and Desert Storm, our retention goals, and overall fleet readiness.

Our funding plans for the future focus on several key areas of health care and aim to carefully balance direct care, CHAMPUS, managed care, and coordinated health care alternatives. We will continue to invest in the efficiencies and benefits resulting from the Medical Blue Ribbon Panel initiatives. We have increased CHAMPUS funding levels in both fiscal year 1992 and fiscal year 1993 (although costs will continue to rise) while incorporating projected savings from contracting, partnership agreements and the CHAMPUS Reform Initiative. We continue to explore innovative ways to use the flexibility granted by Congress to implement effective strategies for ensuring access to health care services while minimizing the use of CHAMPUS.

ENVIRONMENT—ENVIRONMENTAL AWARENESS

As we witness a marked upsurge in environmental awareness in society as a whole, we in the Navy are committed to protecting our fragile environment, particularly in the delicate coastal and intertidal zones. Although naval forces usually operate in the open oceans, our bases, maintenance facilities, and near-shore operating areas give us a very large and prominent presence in the coastal zones of the United States and throughout the world. Accordingly, we are continuing with a variety of programs that not only foster a heightened awareness of environmental concerns within our forces and create a sense of environmental stewardship which pervades the entire chain of command. Some of our ongoing programs that have had significant positive impact in our day-to-day operations, both afloat and ashore, include: intensive management of hazardous material, minimization of hazardous waste, restoration of existing hazardous waste disposal sites, reduction of plastics disposal at sea, conservation and eventual elimination of ozone depleting substances, and strict adherence to laws governing the discharge of oily wastes and atmospheric pollutants. The Navy is committed to a strong and active participation in environmental compliance.

BASE CLOSURES AND REDUCTIONS

As the size of the Navy is reduced, it is essential that we have a corresponding decrease in the size of our supporting infrastructure. A separate list of recommended shore infrastructure adjustments will be submitted by the Secretary of Defense. This list will contain base closure recommendations and realignments driven by changes in the force structure. The configuration of our future infrastructure will be significantly less than it is today, and will be designed to enable us to efficiently perform our mission. Until we obtain final approval to reconfigure our shore infrastructure, we intend to adequately fund the operations and maintenance of our bases in fiscal year 1992.

PILLARS

The fiscal year 1992–93 budget has been built upon a comprehensive framework supported by the four principal budget pillars, shown here accompanied by their percent share of the budget.

[In percent]

	President's budget—	
	Fiscal year 1991	Fiscal year 1992
Force structure	22	15
Readiness	54	61
Sustainability	8	7
Modernization	16	17

As a result of the continuing decline in fiscal resources in consonance with a smaller force structure, the fiscal year 1992 budget reflects a decrease in funding for both Force Structure and Sustainability. Modernization and Readiness show proportionate increases, which is consistent with our goal of keeping forces capable even while we necessarily reduce our numbers. A brief review of the primary elements contained within each of the four pillars follows.

FORCE STRUCTURE

The Force Structure pillar includes ship procurement, aircraft procurement, and new mission military construction. For FY 1992–93, force structure experienced a decrease in funding of $19 billion from the fiscal year 1991 President's Budget, a 7 percent drop in share of Navy TOA. The aviation program reflects the immediate loss of the P–7, A–12, and F–14 remanufacture programs. While we can survive a short-term reduction in aviation funding, sufficient funding over the long haul is a critical factor in ensuring the viability of a carrier-based tactical air capability into the next century. Fiscal year 1992 capital investment in shipbuilding is considerably less robust than in previous years, reflecting current lower budget levels.

READINESS

The Readiness pillar supports the daily operations of our active forces, and includes: fuel and spares; military and civilian pay; ordnance consumption; depot maintenance of ships, aircraft, and ordnance; training; and medical services. Although this pillar decreases by $7.4 billion in fiscal year 1992–93 from the fiscal year 1991 President's Budget, its overall share of Navy TOA increases by 7 percent. This increase is consistent with our goal of adequately funding and training our forces to prevent a "hollow" force structure. These readiness levels are absolutely critical in view of the forward deployed and expeditionary character of the majority of our naval forces. The response of naval forces to Desert Shield and Desert Storm clearly reflects the continued high premium that we place on readiness. However, because of the requirement to deploy ships quickly to the Persian Gulf, some sailed before the completion of scheduled maintenance and extended maintenance on others was deferred. This backlog will need to be completed after the conclusion of Operation Desert Storm.

SUSTAINABILITY

The Sustainability pillar supports the Navy's ability to sustain wartime operations and focuses primarily on ordnance procurement and the Naval Reserve Force. This area has experienced a $5 billion decrease in fiscal year 1992–93 from the fiscal year 1991 President's Budget and a 1 percent decrease in share of Navy TOA. Even though ordnance investment is decreasing, current procurement will provide inventories which are sufficient to support projected future maritime contingencies. Procurement of ordnance designed to counter the Soviet threat has been restructured and procurement strategies refocused to sustain the requirements of regional conflict scenarios. In the case of those weapons which have projected inventories not yet sufficient to completely support regional conflicts, the planned procurement will either result in increased sustainability or, by keeping a warm production line open, ensure that weapon production can be ramped up to meet future uncertainties. As Operation Desert Storm unfolds, the sustainability budget contains the most uncertainty and potential for growth. To maintain our existing warfighting advantages, the large expenditures of land attack ordnance, including TLAM, HARM and precision standoff weapons will, as a minimum, have to be replaced.

MODERNIZATION

The Modernization pillar contains improvements in the military capability and effectiveness of our existing forces, including aircraft modifications, ship modifications, ordnance modifications, and research and development. As with the other pillars, Modernization has been decreased by $3.8 billion in fiscal year 1992–93 from the fiscal year 1991 President's Budget. Even though modernization increased by 1 percent as a percentage of Navy TOA, the substantial cuts in our investment in modernization for surface ships, submarines, and aircraft will cut into programs aimed at augmenting the major warfighting capabilities of these platforms.

A BALANCED AND FLEXIBLE FORCE

The smaller U.S. Navy described in the fiscal year 1992–93 budget provides an appropriate sea-based strategic deterrent against any current or potential nuclear threat to our country, as well as a realistic hedge against a global threat to our national interests. It also provides:

—The capability to maintain tailored naval task groups on station for stability operations and ready crisis response in several theaters of strategic importance.

—The capability to respond promptly with appropriate forces to emerging crises.

—The capability to surge forces as the forward/enabling elements of a joint task force for a regional conflict.

—The capability to sustain appropriate naval forces in a regional conflict while continuing limited stability operations elsewhere—but only through major departure from preferred deployment/rotation policies.

—A base for mobilization and reconstitution of naval forces in the event of a change in the geostrategic climate and a march toward global conflict.

STATEMENT OF GEN. ALFRED M. GRAY, JR., COMMANDANT, U.S. MARINE CORPS

Senator INOUYE. We sadly note that this may be the last official appearance of our Commandant. I personally hope that his service can be extended. It was not too long ago the men and women under his command were the first to respond to the call, first to plant our flag, the first to cross the line. They performed gallantly. It was obvious that their training program was superb, and for that we are most grateful.

Their performance and their courage displayed in the battle of Kafji I am certain will go down in the annals of military history.

For all of this we are grateful to you, sir, and it shows the extraordinary leadership that you have demonstrated all these years. So with that and our gratitude, sir, welcome to the subcommittee.

DESERT SHIELD/DESERT STORM

General GRAY. Thank you very much, Mr. Chairman, and thank you for your very kind remarks.

Members of the committee, it is always an honor to appear before you to discuss your Marine Corps and our vision for the future. Much has been said and written about Desert Shield and Desert Storm, and rightfully so. Your marines, as part of the Navy-Marine Corps team, and indeed with all the Armed Forces, whether they be soldiers, sailors, airmen, coast guardsmen, or marines, we are extraordinarily proud to serve with them today.

Throughout this long operation, and indeed since our last meeting, your marines have continued to operate throughout the globe. In addition to the 93,000 marines who were part of the Marine Expeditionary Corps ashore in Saudi Arabia and the Marine Expeditionary Force afloat in 32 amphibious ships in the Persian Gulf, we continue to have a air-ground logistics team of over 3,000 marines keeping the lid on matters in the Philippines, providing security and assistance to the earthquake victims on the flood-ravaged island of Luzon.

In addition to these commitments, we continue to have an air-ground logistics team, smaller in size of course, in Northeast Asia. Today these marines are training with our allies and friends in Korea.

Several hundred marines have been operating in Central and South America, as we did not step back from our commitment to the counternarcotics war. Indeed, we picked up some commitments along the way. We have been manning radars, building airfields, and providing mobile training teams to many Latin American countries, and visiting all the borders in narcotic-infested areas along the Amazon.

For a long time, marines served—indeed, they recently deployed from Liberia where they assisted many citizens to safety in that war-torn part of Africa. And, of course, on short notice, part of the force that was assigned to Desert Shield and Desert Storm was called into action, two amphibious ships, sailors and marines, sprinted to Somalia to conduct an evacuation operation. That exercise is indicative of the flexibility of our Navy-Marine Corps team, and it attests to the initiative and capabilities of our forces. Five hours and ten minutes from the time they were given that mission, our Marine expeditionary unit—special operations capable—forces launched. They flew 450 miles at sea, at night, with limited navigation equipment using our own C–130's for pathfinders. They refueled twice. The force landed in Somalia 6 seconds after they were supposed to. Sixty-two of your marine commandos came out of the helicopters to protect the Embassy, which already had ladders thrown up upon it by insurgent forces. Sixty-two Americans and foreign nationals were taken out in those helicopters. As the ships they departed from were closing, the helicopters only had to fly 350 miles to get back to safety; again, they were refueled in flight, and 63 Americans and foreign nationals landed on those ships, as the corpsman delivered a baby during the refueling operations.

The ships continued to close and the next evening they were stationed off the coast to bring to safety hundreds of other Americans. Forty-eight hours later, the ships were well on their way back to their stations in the Persian Gulf.

We mention these types of operations because, in my judgment, all of the Armed Forces have to be prepared in the future to do these types of things and do them well. We know not where. We simply know it will come about.

With that as a benchmark, we have had nearly 90 percent of your operating forces deployed in a total force, Active and Reserve, we activated, as you know, 26,000 marines. One-half of these reserves served with distinction in Saudi Arabia. Others served in the Philippines, Okinawa, Central America, and maintained our contingency and readiness base.

Throughout this whole operation, we have maintained, on bot coasts, an in extremis special operations and counterterrorist-counternarcotic capability.

CONCERNS FOR THE FUTURE

Normally we have about one-third of our operating forces deployed around the globe, and that brings me to one of my main concerns for the future. It takes ships and it takes people to be forward deployed. You hear much about operational tempo and personnel tempo, and normally when your marines have more than one-third of their force deployed, you begin to really stretch them out. When this happens, you have a major impact on their preparedness, on the quality of life, and taking care of the families. All that goes into the total person idea within your Corps.

So, we must be careful in the future. The commitments in my experience will not go away. In fact, they will probably increase. And I worry. I worry, for example, about the Pacific, as we become stretched thin. I worry about the fact that the Department of the Navy must reduce amphibious ships in the active service, and indeed take some out of the inventory, because you can only do so much with the available funding.

It is going to be more difficult to maintain presence and flexibility throughout the vast Pacific region, paradoxically, at a time when we see more and more interests throughout the Pacific basin and more and more need for stability throughout that region.

For 40 some years our strategy has been containment. That has worked and we have won. We're not quite finished yet, but at least we are a long way toward a better relationship with the Soviet Union.

Our one-word descriptor for our strategy in the future would be stability. We simply must have access to the many regions of the world. We must have access to the minerals and resources. There must be stability in that region, not just for the United States, but indeed for the free world as we describe it today.

In order to have stability, one must have influence. Just as if you care to influence this gathering, you must be here. That means presence. And as we draw back, we see smaller and smaller opportunities for forward basing. We simply must, in my judgment, have an alternative.

We must determine how we are going to have the presence, how we are going to have the stability, and how we are going to be able to operate with our friends and allies throughout the world. There is nothing like training and operating and being seen together to give you that solidarity that is absolutely essential to preserving stability.

These concerns of your Corps have to be measured against what assets we are given to operate with in the years ahead. We must not step back, in my judgment, from our training and our education. That is crucial. We believe that education and training had a great deal to do with the success of the Armed Forces in Desert Shield and Desert Storm.

We must be wary of the tendency to reduce operations and maintenance funding or operations and support, as it is termed in the other services. This is your lifeblood in terms of readiness and preparedness.

Somewhere along the way in our grand strategy, we must adopt force sequencing. Not everybody can be ready to go all the time for all the obvious reasons. We have to adopt a force sequencing concept. And the further we go from the United States, the more we will have to sequence our forces into a region to preserve stability or to take care of a conflict.

QUALITY OF LIFE

Quality of life is top on everybody's list, for all of the right reasons. In your Commandant's view, the greatest thing you can do for your families and friends, for the loved ones that send their tremendous young men and women to us, hopefully to be stronger when they leave us than when they join us, is to bring them back from a deployment or a conflict alive.

So I want to underscore again, the importance of training and education and the ability to think and to operate in a smart way. Challenges to our ability to train, educate, and operate is what our forces face today and that is what, in my view, they will face in the future.

As always, when all is said and done, your Corps will take what the people, through the Congress, give it in the years ahead, and we will continue to provide a Corps that we believe will be second to none, anywhere in the world.

Thank you, Mr. Chairman.

[The statement follows:]

STATEMENT OF GEN. A.M. GRAY

Mr. Chairman, distinguished members of the Committee, I appreciate this opportunity to report to you on the readiness and capabilities of your Marine Corps.

PROLOGUE

For many years, Marine Commandants have been making statements on the posture and readiness of your Corps. In 1990 these statements were again put to the test. We had promised that we could respond to multiple crises around the globe at a moment's notice without mobilization. We have. We had promised that we would be light enough to get there, and heavy enough to win. We are. We had promised that we would take our place in joint and combined operations. We did. And we promised that your Marines would be warriors—second to none. We believe they are.

Our global orientation, maritime character, and expeditionary capability have all been ably demonstrated during the past year. Marines were ready in the Philippines when they were needed to provide disaster relief, to improve security for our naval and diplomatic installations, and to provide a stabilizing influence. They were ready when American citizens and foreign nationals had to be evacuated from strife-torn Liberia and Somalia. And they were ready when called upon to fight in Panama and Desert Storm.

Today, your Marine Corps is executing its legislated roles and missions. Approximately 80% of our operating forces are performing missions outside the continental United States. Our active and reserve Marine units operating around the world are fully-integrated fighting forces. These deployed units include 29 of our 33 infantry battalions, all of our tank battalions, and 60 of our 76 aviation squadrons. The impressive capabilities being demonstrated by this Total Force are the result of the superb planning and execution of legions of dedicated Marines and Sailors operating under the leadership and vision of my distinguished predecessors. Equally as important has been the leadership of our civilian and military defense leaders in the Department of the Navy and the Department of Defense. Above all, none of these capabilities and readiness would be possible without the support of the American people as reflected by the support and actions of the Congress.

Although our attention has been focused on events in the Middle East, we must make decisions regarding military strategy and force structure that will determine our Nation's military capability well into the next century. It's not an easy task to reduce defense spending and force structure in a security environment in which the only certainty is uncertainty.

INTERNATIONAL SECURITY ENVIRONMENT

For the past forty-five years, our National Security Policy and Strategy has been consistent and effective. Based on the policy of containment, our strategy was built upon the pillars of deterrence, forward defense, and strong alliances. The result was a victory in the Cold War and optimism about the prospects for peace in the future. Our optimism was short lived. The end of the Cold War did not result in a world at peace.

Recent world events have shown that a relatively stable security environment has been replaced by one of increasing instability and uncertainty. The collapse of the bi-polar balance of power will result eventually in a multi-polar world. However, during this period of transition, the world will be increasingly volatile as emerging powers attempt to take advantage of the current security environment and try to achieve hegemony in their respective regions. Trans-national political entities such as terrorist organizations and traffickers in illegal narcotics will use unscrupulously whatever means are available to achieve their ends. Terrorism against individuals, property, and even the environment will continue to be an inexpensive weapon to achieve political objectives.

Nationalism is on the rise, especially in those countries upon which the developed world is dependent for its supply of strategic resources. These nations are beginning to demand a greater share of the wealth produced by their resources and it is likely they will begin to exert increased influence on world affairs as they realize the extent of their power. This situation is complicated further by the proliferation of high technology weapons, weapons of mass destruction, and conventional weapons. In some of these areas our access to materials, markets, and bases also could be threatened or reduced. In these same regions, dramatic increases in population coupled with an increased dissatisfaction about the gap between rich and poor will be a major source of regional instability and a cause of insurgencies.

Our Nation's economy is becoming increasingly integrated within a single, worldwide economic order. This interdependence may cause conflict as existing political instabilities are exacerbated by economic disparity, increased competition for scarce resources, and growing nationalism. Our economic well-being will remain dependent upon our continued access to natural resources and world markets.

The shift from the relative certainty of the Cold War to the uncertainty that lies ahead requires that we shift from a policy of containment to a policy of stability. The goal of this policy is the creation of the favorable political, economic, and security environments needed to achieve our objectives. To be successful, we must focus all the elements of our national power toward the achievement of a single goal—worldwide stability. Our political, diplomatic, economic, and military means must be totally integrated and focused on the achievement of this goal. Our success will be dependent upon diplomatic influence abroad, political unity at home, and a credible military capability.

In light of the ongoing changes in the international security environment, we must continue the complete and comprehensive examination of our military strategy and military force structure requirements. We must develop a military strategy and force structure that will promote stability, foster collective security, and provide a hedge against uncertainty well into the 21st century. In doing so, we need a strategic thought process which recognizes that aerospace, maritime, and continental concepts are most effective when combined into a single integrated strategy.

Successful execution of a military strategy designed to assist in maintaining worldwide stability requires a flexible military force structure that possesses a wide range of capabilities and aggregate usefulness. The missions assigned to these forces will range from forward peacetime presence to sustained power projection operations. These missions will require the combined capabilities of all the components of our military force structure. This is why in the coming decade even greater emphasis will have to be placed on joint and combined operations since they provide the means to capitalize on the existing complementary capabilities of each of the services.

Each service must continue to focus on its respective roles and missions if we are to capitalize on the synergistic combat capabilities that are the result of decades of organizational focus and institutional ethos. As we debate our future force structure requirements, we should remember that the unique missions and functional capabilities of the services are designed specifically to be complementary, enabling, and enhancing. Used together, they provide us the means to generate rapidly needed combat power tailored to the mission at hand.

NAVAL FORCES

The ability to maintain influence by sustained forward presence and, when needed, to project power ashore in distant regions of the world is a fundamental capability for successful execution of a stability strategy. We believe that Navy and Marine Corps expeditionary forces will continue to provide a significant portion of this required capability. Our naval forces are already structured and, more importantly, already postured to maintain forward presence and to be the lead elements of our power projection capability in many of our Nation's regions of interest.

Today, our naval expeditionary forces are operating around the globe demonstrating US interest, supporting our allies, ensuring our free use of the sea lines of communications and our access to markets, and providing an immediately available and credible crisis response capability. As demonstrated repeatedly, the presence of naval expeditionary forces, poised off the coast of a potential adversary for extended periods, can deter conflict and allow the diplomatic process to work. Should diplomacy fail, these forces can project combat power ashore with the necessary sustainment to accomplish a wide range of missions.

These expeditionary forces are a logical complement and, in some cases, the only alternative to the permanent forward-basing of land forces. Naval forces arrive on the scene with all of the inherent advantages that seabasing affords: flexibility, mobility, security, and sustainability. As a result, in many cases, naval forces are the "force of choice" for crisis response operations because of their ability to operate from sea bases without a need for host nation support, overflight rights, or aircraft and personnel bed down sites.

Future conflicts may not offer us the luxury of established air and supply bases that often have been available. Naval forces provide the National Command Authorities with a flexible response option to crises by being able to: demonstrate resolve to belligerents and regional allies; evacuate and protect noncombatants; enable the early commitment of follow-on forces by seizing strategic facilities, choke points, and airfields; or to conduct strike operations and sustained operations over the shore. And, they also may perform supporting operations such as SLOC protection, interdiction, and blockade.

Power projection will, in the most likely regions of instability, require a major maritime commitment. These operations normally will evolve from an initial presence by forward-deployed naval forces—most likely a carrier battle group and an amphibious force which includes a special operations capable Marine Air-Ground Task Force (MAGTF). This initial MAGTF could consist of either a Marine Expeditionary Unit or a smaller Special Purpose Force, since these type of forces are routinely forward-deployed to maintain influence and enhance stability in regions of interest.

As we have seen in the Persian Gulf, naval presence can be sequentially enlarged through the introduction of augmenting forces such as additional carrier battle groups, battleships, Marine Expeditionary Forces (MEFs), and Maritime Prepositioning Ship (MPS) squadrons. In addition, this initial naval presence also can be augmented by land-based forces with the sequential introduction of ground combat elements and land-based tactical aircraft.

THE CORPS

Marine Expeditionary Forces with their flexible organization, their combined-arms and amphibious capabilities, and a centuries old relationship with the Navy are ideally suited for naval expeditionary operations. Our legislated combined arms force structure of three active and one reserve division/air wing teams are organized for combat as air-ground-logistic teams called Marine Expeditionary Forces (MEFs). These MEFs, strategically located and rapidly-deployable, are our principal organization for combat and peacetime preparedness. They are reservoirs of combined arms power from which a variety of Marine Air-Ground Task Forces (MAGTFs) can be tasked organized for the mission assigned. The MAGTF concept is based on the integration of ground combat, aviation combat, and combat service support elements under a single commander. This approach allows us to tailor the MAGTF in size and composition to meet the broadest range of operational requirements on short notice. All MAGTF's can possess special operations capabilities, be task organized as small special purpose forces, as light airlifted contingency forces, as amphibious assault forces, or as forces tailored to link-up with prepositioned supplies loaded aboard maritime prepositioning ships. They also can operate independently or as part of a joint task force.

In response to the present crisis in Southwest Asia we deployed several Marine Expeditionary Brigades (MEBs) aboard amphibious shipping, by strategic airlift, and by using maritime prepositioning ships. We then combined these units into two

MEFs: one ashore and one afloat aboard amphibious ships. The MEF ashore is a task organized force, specifically tailored for combined-arms warfare against a mechanized threat. The MEF afloat is task organized to conduct forcible entry operations from the sea.

DEPLOYMENT OPTIONS

"Get to the fight fast with enough supplies to last."

We continue to emphasize rapid response and sustainability in all aspects of planning and execution. In the words of our 22nd Commandant, General Shoup: "Marines are ready to go any time, anywhere, with any kind of transportation and tangle with the enemy." Our expeditionary forces deploy by amphibious ships, strategic airlift, maritime prepositioning or a combination of all three means. Depending on the situation, we have the flexibility to task organize a force which maximizes the capability of each option: the utility, forcible entry capability, and endurance of amphibious lift; the capacity and sustainability of sealift; and the speed of airlift.

AMPHIBIOUS LIFT

Much of our Nation's ability to respond to simultaneous and multiple crises around the globe depends on the availability of amphibious shipping. In the midst of our Southwest Asia deployment, the largest naval deployment since World War II, amphibious forces were called upon simultaneously to evacuate American citizens and foreign nationals from Liberia and Somalia. These operations underscore our Nation's need for flexible, responsive, and most importantly, immediately available and forward deployed Marine expeditionary and Navy amphibious forces. We believe that our operational requirement remains unchanged: enough amphibious shipping to lift the assault echelon of two Marine Expeditionary Forces simultaneously. This allows us to land a Marine Expeditionary Force and still retain the flexibility to meet other worldwide operational requirements. Although budget constraints will not permit us to achieve this goal, it is the benchmark for measuring the difference between requirements and capabilities.

MARITIME PREPOSITIONING

Ten years ago you implemented the Maritime Prepositioning Program (MPS) to complement our amphibious capability. The strategic deployment flexibility offered by MPS combines the advantages of airlift speed with sealift capacity and forward positioning to rapidly deploy Marine expeditionary forces in support of the warfighting CINCs. This program was validated in an operational environment for the first time last August in Southwest Asia. The first Maritime Prepositioning Ships arrived in Southwest Asia within a week of receiving their movement orders. As they began off-loading their cargo, Marine units from California and Hawaii, flown in by strategic airlift, were there to link up with their supplies and equipment.

All three of our MPS squadrons have been employed in the Persian Gulf. Each of these specially configured squadrons provides enough tanks, artillery, vehicles, ammunition, supplies, food, fuel, and water to support a brigade of Marines for 30 days of combat. The utility of these ships did not end with the offload of their cargo. For example, two of the ships subsequently formed the nucleus of a floating, mobile, logistics seabase. They now provide maintenance, fresh water production, and fuel and munitions storage to the Marines in Southwest Asia. In addition, one ship has been reloaded and is providing a maritime prepositioned force capability for a Marine Expeditionary Unit. This ship is now on station in the Pacific for crisis actions.

MPS allows us to conserve the Nation's critical strategic airlift. For example, the lead element of the I Marine Expeditionary Force, the 7th MEB (an integrated combined arms task force of over 18,000 Marines) used 259 strategic airlift sorties deploying to Southwest Asia. This is modest when compared to the 3,000 plus sorties that would be required to move the same force without maritime prepositioning.

MPS was designed to complement and enhance our strategic mobility and flexibility. It was not intended to be a substitute for the forcible entry capability which amphibious shipping provides.

Two Aviation Logistic Support Ships (T-AVB) also deployed to Southwest Asia. These specially configured ships, although not part of the MPS program, provide spare parts, technicians, and intermediate maintenance facilities and equipment. They can operate either underway or pierside. Without the T-AVB, 160 airlift sorties would be required to deploy each of these intermediate maintenance capabilities.

Our amphibious shipping, maritime prepositioning ships, and the T–AVBs have demonstrated their value in crisis response. This year's operations in Southwest Asia, Liberia, and Somalia would not have been possible without these relevant capabilities.

STRATEGIC AIRLIFT

Marines can also deploy by strategic airlift either as part of a maritime prepositioning force operation or independently as Airlifted Contingency Forces (ACFs). Our ACFs are light task organized expeditionary forces rapidly deployable on very short notice. They can operate independently or as the lead element of a larger naval expeditionary force or joint/combined task force.

CURRENT OPERATIONS

Today, Marines are operating throughout the world. The events of the past year highlight the global capabilities and flexibility of the Marine Corps. The deployment of Marines to Southwest Asia and simultaneous operations in Liberia, the Philippines, and Somalia highlight the important contributions Marines make to our Nation's security. The initial deployment of Marine units to Southwest Asia and the subsequent linkup with their equipment provided the first credible task-organized, antiarmor, combined arms force during the early stages of the crisis. As the Marine presence grew from 40,000 in late October to over 90,000 Marines today, so did our capabilities. These Marines, specifically task organized for Desert Storm, formed two MEFs.

The expeditionary force ashore, in essence a Marine Expeditionary Corps, consists of two reinforced Marine divisions, one Army armored brigade, four Navy construction battalions, one reinforced Marine aircraft wing, and two Marine force service support groups. The MEF afloat consists of about 18,000 Marines aboard amphibious ships. We tailored these two MEFs to accomplish a wide range of missions with units derived from all three of our Marine Expeditionary Forces and our Reserve Division/Wing Team. This was possible because of our organizational focus on sustained, task organized expeditionary operations and the flexibility and aggregate usefulness of our existing force structure.

In Operation Sharp Edge, Marines responded to the crisis in Liberia. Upon receipt of the NCA tasking, we organized a Special Purpose Force from our forward-deployed Marine Expeditionary Unit in the Mediterranean, embarked it aboard a Navy destroyer, and deployed it to Liberia. A few days later the amphibious ready group with the remainder of the Marine Expeditionary Unit, Special Operations Capable (MEU(SOC)) arrived. These Sailors and Marines remained on-station for more than six months and evacuated over 2400 American citizens and foreign nationals from the war-torn capital of Monrovia. The evacuation began as Marines were deploying to Southwest Asia for Operation Desert Shield. As the crisis in the Gulf intensified, American citizens threatened in Mogadishu, Somalia required evacuation. Two amphibious ships detached from the task force operating in the Persian Gulf and steamed toward Somalia. Four hundred and sixty miles from Somalia two CH–53E helicopters loaded with a Marine Special Purpose Force were launched from amphibious ships. The helicopters were refueled twice enroute at night by Marine KC–130 tankers, and arrived in time to safely evacuate American citizens and foreign nationals. Mission accomplished and helos back aboard, the ships steamed back to the Persian Gulf and are again engaged in Desert Storm.

When the war began in Southwest. Asia, your Marines were ready in the air, on the land, and at sea. They were integrated fully in the CINC's command, control, communications, and intelligence command structure. Their execution of assigned combat missions was superb. The unique flexibility, combat capability, and sustainability of your Marine expeditionary forces were demonstrated throughout the campaign. In the air, Marines flew over 17,000 sorties in support of both the CINC's strategic air campaign and ground combat operations. On the land, your Marine Expeditionary Corps when given the order to execute its assigned mission rapidly advanced to engage the enemy and seize assigned objectives. As they advanced to their objectives, they destroyed or captured over 1000 tanks, over 600 armored personnel carriers, and over 400 artillery pieces. At sea, your amphibious forces continued to interdict the enemy's sea lines of communications as well as being poised to launch an assault from the sea at a moment's notice. Their very presence off the coast created confusion among the enemy and caused them to dedicate significant resources and forces to defend their coastal flank against an amphibious assault and/or vertical envelopment. In executing their assigned missions, your Marines performed with courage and distinction—as did all of the U.S. and coalition armed forces. However, it should be noted that none of this would have been possible without the superb performance of the Soldiers, Sailors, Airmen, Coastguardsmen,Marines and Civilians assigned within the supporting establishments.

Additionally, since 1989, Marine expeditionary forces have maintained a continuous presence in the Philippines. These forces, drawn from III MEF forces forward-deployed in Japan, are providing protection for our citizens, interests, and naval installations.

COUNTERNARCOTICS SUPPORT

We have supported strongly the President's National Drug Control Strategy as an integral part of the DOD effort to combat the importation of illicit drugs at their source, in transit, and within the United States. At the source, we are conducting training in riverine operations and providing mobile training teams to various Latin American nations on the front line of the Drug War. We have deployed a Tactical Air Operations Center which provides air surveillance radar coverage in Latin America in support of the Southern Command. Additionally, we provide personnel training and operational support to the Drug Enforcement Administration. We also conducted continuous OV–10 maritime detection and monitoring missions in the Caribbean Sea and the Atlantic Ocean until August of 1990. Within the United States, Marine ground surveillance operations and other special operations are continuing along the southwest border. Further, Marines continue to conduct law enforcement operations along the California coast by providing surveillance of inlets that are potentially usable for drug smuggling.

We have not neglected the home front in our fight against illegal drugs. We are helping community leaders in their efforts to rid their neighborhoods of illicit drugs. These efforts include role model and education programs at grade and high school levels as well as efforts with community youth activities to offer positive alternatives to drugs. And we have been at the forefront in providing rehabilitation-oriented training to State and local corrections officers. We continue to assist the local enforcement agencies in developing leadership and motivational techniques for use in turning around the lives of young drug offenders.

RIGHT FORCE, RIGHT FOCUS, RIGHT CAPABILITIES

Our ability to respond to several crises simultaneously while maintaining worldwide presence underscores the need for a Marine Corps of three active MEFs. Three MEFs provide the capability and flexibility needed for global operations. Our balanced MAGTFs with fully developed air-ground and logistics elements allow us to respond to a 60-day crisis without reserve call-up. Although our reserves are not relied upon for our initial response to crisis, they provide a critical sustainment and reinforcement base for extended operations beyond 60 days. As the Nation's expeditionary force-in-readiness, Marines arrive ready to fight with the sustainment necessary to accomplish the mission at hand.

SERVICE PLANNING

Conventional deterrence, protection of American citizens, security of critical installations, and warfighting are just four of the missions Marines are accomplishing today throughout the world. These contributions are the result of a deliberate and comprehensive service planning process that addresses all aspects of our training, education, doctrine, and equipment. Our service planning process is charting the future course of your Marine Corps. It has guided the response of the Marine Expeditionary Forces in Southwest Asia, and contingency responses in Liberia, Somalia, and the Philippines.

Although the Marine Corps has significant capabilities, improvements in our expeditionary capabilities must continue. We have developed and continue to refine the three plans which will guide our Corps into the next century. The first, the Marine Corps Campaign Plan, provides a common direction to the Fleet Marine Forces and the supporting establishment. The second, the Marine Corps Long Range Plan, projects the long term security environment as well as the concepts, capabilities, and goals needed to meet the challenges that are 10 to 20 years into the future. The third, the MAGTF Master Plan, focuses on operational concepts and requirements through the year 2000. This master plan places an increased emphasis on revolutionary warfare and regional conflict. By incorporating the goals outlined in the long-range plan into our master plan, we are able to establish and identify the priorities for developing our mid-and long range operational requirements.

RESEARCH DEVELOPMENT AND ACQUISITION

Our primary research, development, and acquisition goals are aimed at enhancing our multi-mission capable forces and further developing an over-the-horizon assault capability. Every equipment modernization decision supports these goals. The key thoughts are mobility, flexibility, speed, and significant combat advantage. Several systems currently under development will help us meet our goals.

AVIATION COMBAT

Recent events have reemphasized the critical need to replace our medium assault lift helicopter fleet. Operations in SWA, Liberia, and Somalia underscore the vital necessity for a medium assault lift capability that includes increased speed, range, survivability, payload, and the subsystems required for precision navigation at night and in adverse weather. Today, Marines are operating in a combat environment that pushes the CH–46 to the edge of its operating limits. If production started today on its replacement, the CH–46 fleet would be more than 40 years old by the time the last aircraft retired. While we are sensitive to the current fiscal environment, advances in surface-to-air munitions have placed this airframe and the Marines that it carries at risk. The process of evaluating the medium assault lift requirement and selecting alternatives is ongoing. However, we have reached the point where we can no longer afford to postpone the decision to replace the CH–46.

To meet our other operational requirements, we have requested procurement of AH–1W, CH–53E and F/A–18 aircraft. This continued force modernization is essential to our future warfighting capabilities.

We continue to pursue evolutionary enhancements to the capabilities of our aircraft. We are especially interested in improving our ability to conduct night and adverse weather operations from over-the-horizon. The achievement of these capabilities remains a crucial warfighting requirement. Our programs are structured to capitalize on mature and proven technology that requires a minimum investment in RDT&E and procurement. Our AH–1W Night Targeting System is a critical warfighting requirement. We are planning to procure 18 systems during fiscal year 1992. Further, we expect delivery of the precision navigation systems for the AH–1W to begin this year. We are also in the process of standing up our second squadron of Night Attack Harriers. Equipped with a forward looking infrared radar (FLIR) night vision goggles and a cockpit optimized for night operations, the Night Attack AV–8B provides for around the clock operations. Additionally, our fiscal year 1991 AV–8Bs will be radar equipped to provide an air-to-air capability.

We also have enhanced our overall night and all-weather capabilities by the modernization of our F/A–18A aircraft to F/A–18Cs and the transition from A–6Es to F/A–18Ds. Our first F/A–18D squadron is currently deployed to Southwest Asia. The transition of a second squadron of A–6Es to F/A–18Ds is underway. The addition of FLIR and a night vision device will measurably improve our night attack capability. The continued addition of other improvements will provide our F/A–18Ds with an all-weather targeting capability. We also have translated lessons learned during operations in Southwest Asia into improvements in our night fighting tactics, our use of electronic countermeasures, and our ability to navigate in combat.

We seek new procurement only when modifications are not practical. We have further reduced operating costs and increased the commonality of our force by retiring three older Type/Model/Series of aircraft from our inventory. Our goal is to reduce the types of aircraft in our inventory with no loss of capability.

GROUND COMBAT

The Advanced Amphibious Assault (AAA) Program remains our primary developmental research effort. The AAA will provide the high speed movement of the surface assault forces from ships beyond the horizon to inland objectives. The final product of the AAA Program will complement the Navy's Landing Craft Air Cushion (LCAC) and our medium assault lift aircraft in improving dramatically the forcible entry capability and tactical mobility of our expeditionary forces.

We will add the LAV Air Defense variant to our family of Light Armored Vehicles and will continue the research and development of an assault gun variant. Concurrently, we continue to improve communications interoperability with all U.S. and Allied military forces. Several systems will help fulfill this communications requirement: the Marine Air Command and Control System, the Joint Service Imagery Processor, the Marine Tactical Command and Control System, and the Single Channel Ground-to-Air Radio System. These systems, in combination with other programs, will improve dramatically our Today, more than 80 percent of the Fleet Marine Forces and 50 percent of the Selected Marine Corps Reserve are deployed side-by-side outside the Continental United States. Their combined performance reaffirms the wisdom of building our Total Force with quality Marines—highly trained, educated, and prepared.

RECRUITING

Our Total Force has been strengthened by the recruiting successes of the past three years. More than 95 percent of our accessions were High School Graduates with over 67 percent scoring in the upper three Armed Forces Qualification Test Categories. These achievements provide the Marine Corps with responsive, highly motivated, and intelligent Marines. As amply demonstrated by recent events, these young Americans give us the kind of quality we need to man a force capable of dealing with an uncertain world situation.

As we proceed into the 1990's, we will continue to seek out the same high quality young Americans. Successful recruiting is a combination of articulating the challenges of being a Marine, providing recruiters with the advertising resources to get the word out, and raising compensation levels enough to attract the quality individual we seek. A smaller, more elite Corps will demand that every Marine be multi-talented. Changing demographics and increased competition for America's youth will make our search for quality more difficult. Helping our recruiters succeed will require adequate funding for our recruiting and advertising programs.

RETENTION

The success of our recruiting program is mirrored by impressive successes in our retention programs. We are especially proud that the Marine Corps surpassed its overall reenlistment goals for fiscal year 1990. In achieving our retention goals the Marine Corps has improved unit cohesion, increased unit stability, and lowered training costs. In this way, retention programs provide a very high return on recruiting and training investments. The Selective Reenlistment Bonus Program is one of the most important; factors contributing to our success. Its continued funding will be important to the future of your Marines.

FORCE STRUCTURE

In the midst of an exceptionally busy operational period and despite mounting tensions throughout the world, we are preparing to reduce our end strength. I must emphasize that these reductions will have a disproportionate impact on our operating forces: the Fleet Marine Forces, Marine Security Forces, Marine Support Battalion (Naval Security Group) and the Marine Security Guard Battalion. Our training and supporting establishments is extremely lean and cost effective. Strength reductions will, therefore, have the greatest impact on our operating forces—the forces called upon to do so much in an uncertain world. The years ahead will challenge our leadership, imagination, and creativity in ways we had not heretofore experienced. We must preserve our readiness and warfighting capability as we reduce the size of a force expanded by the demands of the present crisis. My primary concern is that we remember the loyal and dedicated service of the Marines who are doing what must be done in Operation Desert Storm. Any "drawdown" must be fair to all Marines, take advantage of the new reduction authorities you have provided, be equitable, and respect the dignity of our Marines and their families.

QUALITY OF LIFE

Our family service centers are important to our Marine Corps family. There are 18 Family Service Centers located in the United States and overseas. The demands on these centers have increased steadily over the past three years. For example, there have been over 350,000 contacts during the past fiscal year, a fact that underscores the Family Service Centers' value to our Marines and their families. In addition, the demands on our Child Development Centers have increased dramatically. Additional support in these areas will be required if we are to fulfill the needs of our Marine family.

Anticipated manpower reductions will also test many of the programs designed to help Marines transition from military to civilian life. For instance, Marines with good service records who are involuntarily separated after six years but less than twenty years of service will receive separation pay. Other programs that you have supported and sponsored through the Transition Assistance Management Program will also ease the transition to civilian life.

RESERVES

Desert Storm's smooth integration of Reserve combat, combat support, and combat service support units into the active forces has proven the viability of our integrated training and exercise programs. Our reserve forces are a key component of our warfighting capability. For example, reserve Marines are assuming several active force missions by providing the majority of forces for Exercise Battle Griffin—a Northern Region NATO exercise. They are also participating in Exercise Team Spirit in Korea, Exercise Ahuas Tara 91 in Honduras, and Exercise Solid Shield within the Atlantic Command. Additionally, the 4th Marine Division has assumed I Marine Expeditionary Force's drug interdiction mission in support of Joint Task Force 6 along our Southwest border.

RETIREES

Our retirees continue to prove the maxim, "Once a Marine always a Marine." In recent months I have received hundreds of phone calls, letters, and visits from retired Marines asking to return to active duty to support our efforts in the Persian Gulf. The spirit embodied in these warriors remains the foundation upon which we continue to build our Corps of the future. For example, many of our retired Marines take an active role in our Professional Military Education programs. We are not ignoring this important resource and we continue to support fully the programs upon which they rely.

CIVILIANS

Our civilian employees are critical to our success. They are strategically placed in our supporting activities to help us keep Marines in the operating forces. This is why reductions to our civilian structure must be carefully considered.

TRAINING AND EDUCATION

Our Nation's military capability is enhanced by a Marine Corps prepared for battle by demanding and comprehensive training and education programs. These programs have institutionalized the qualities that have made Marines what they are. Your Marines are taught not only combat skills but, more importantly, they are taught to outthink any opponent and to seize and maintain the initiative. This is a testimony to our combat-oriented Marine Battle Skills Training which is designed to develop and sustain basic combat skills throughout a Marine's career.

Our Professional Military Education (PME) program develops innovative, thinking leaders. It encompasses professional self-study that includes correspondence courses, professional reading, symposia, and formal schools. Our educational programs are designed to assist all Marines in their personal growth within the profession of arms. For example, our Non-Commissioned Officers participate in a continuous program of PME. At each level in their career our NCOs are studying the profession of arms either at school or in the field. Quality small-unit leadership has always been our trademark. Our PME program will ensure the tradition continues. The Marine Corps University, founded in 1989 and located at Quantico, is responsible for developing and coordinating PME throughout the Corps. This includes resident and nonresident PME for both active duty and reserve Marines. The resident schools of the Marine Corps University include the NCO schools, Staff NCO Academies, The Basic School, Communications Officers' School, Amphibious Warfare School, and Command and Staff College.

Our School of Advanced Warfighting, a year-long extension of our Command and Staff College, will better prepare officers for key positions in high-level joint and combined staff billets. The Art of War Studies program is part of our current effort to upgrade the quality and depth of the Marine Corps University faculty. A handful of select senior officers spend a year studying advanced issues in strategy and the operational art. The graduates of this top-level school will then serve two-year tours as faculty members at the Marine Corps University. Progress is also being made on the University's planned research facility. It will be a comprehensive facility that will provide related research services for the analysis and study of expeditionary and amphibious warfare.

The worth of our training and education philosophy and programs was again proven during Operation Desert Storm. Our combat leaders, at all levels of command, were able to rapidly identify and exploit enemy vulnerabilities and to shatter the enemy's cohesion through a series of violent and unexpected actions that created a turbulent and rapidly deteriorating situation with which he could not cope. This is the essence of our maneuver warfare philosophy, the thought process which we believe essential for any air, land, and sea campaign to be successful.

SUSTAINING THE FORCE

Perhaps the most noteworthy achievement during Operation Desert Shield was the rapid deployment to Southwest Asia of a credible, task organized combat force with an organic sustainment capability. A fundamental characteristic of naval forces is that they deploy with an adequate level of sustainability. As a policy, our MEFs deploy with 60 days of supply. Operations in Saudi Arabia have proven our ability to sustain our forces. We committed over 80 percent of our operating forces and a larger percentage of war reserve stocks to meet the requirements of this contingency. Without our logistics depth, acquired through years of persistent programming efforts and your consistent support, our rapid build up of needed combined arms power in Southwest Asia may not have been possible.

The Marine Corps did not develop this logistics capability without costs. In the process of achieving a force with balanced ground, aviation, and service support forces we insisted that organic sustainability be maintained in spite of a strong pressures to try and gain "tooth" at; the expense of "tail." As a result our combat service support is in our active force structure and we will continue to maintain a "tooth" to "tail" ratio consistent with a truly expeditionary force.

The kind of logistics capability demonstrated during Desert Storm is critical to our Nation's military capability. Decisions in the post-war era, when resources are scarce, will be difficult. However, we now must reconstitute our sustainability and our MPS capability to meet the next crisis as quickly as possible. We must move many Marine units, and their equipment over long distances by land, by sea, and by air as our warriors redeploy, reconstitute and come home. We will execute this redeployment as we always do; smartly, tactically, by echelon, always prepared for crisis response, and—above all—safely. The unfolding nature of world events will not allow us the luxury of taking our time to prepare for the next crisis.

THE FUTURE

There will always be those who will continue to make the mistake of underestimating the resolve of the American people. They will persist in challenging us along littorals and in the rapidly-expanding urban centers of developing nations, many of which have experienced extraordinary population growth and thus face suddenly-released national, ethnic, and economic aspirations. These factors will combine to generate new frictions, renew old feuds, and contribute to instability.

Such circumstances dictate that as our Nation moves into the 21st century we face the challenge of determining the right mix of military capabilities based on need and affordability. Fortunately, the foundations of our military requirements are in existence today. In particular, our Nation will continue to require a Navy and Marine Corps of sufficient size, quality, and ability to ensure freedom of the seas and the projection of power to maintain peace and stability wherever United States national interests may be. We believe that your Marine Corps is ready for the challenges that are ahead. We will continue to provide the Nation with the highest possible return on its defense investment. Our strengths will remain versatility, readiness, and aggregate utility. Operating with the other services, we will continue to provide the Nation with a competitive advantage of unmatched usefulness. And we will overcome whatever challenges are ahead with a degree of excellence on the part of Marines, regular and reserve, expected by the Nation and demanded by our traditions. No Commandant could ask for more, nor report to you, the representatives of the American people, with greater pride. As always the Marine Corps is grateful to you for your loyal support. Your Corps stands ready and prepared to do what must be done.

Our request for fiscal year 1992/1993 is as follows:

[In millions of dollars]

Appropriation	Fiscal year—			
	1990	1991	1992	1993
Military personnel, Marine Corps	5,799	5,912	6,067	6,101
Reserve personnel, Marine Corps	314	337	327	330
Operation and maintenance, Marine Corps	1,851	1,890	1,895	1,740
Operation and maintenance, Marine Corps Reserve	78	85	76	75
Procurement, Marine Corps	1,100	690	1,039	651
Family housing, Marine Corps allocation	151	133	131	113

[In millions of dollars]

Appropriation	Fiscal year—			
	1990	1991	1992	1993
Military construction, Marine Corps projects	162	139	95	153
Military construction, Marine Corps Reserve projects	16	9	5	3
Stock fund, Marine Corps	26			
Total	9,497	9,195	9,635	9,166

Senator INOUYE. Thank you very much, Mr. Commandant. We salute you, sir.

Before I proceed with my questions, may I call upon the vice chairman, Senator Stevens.

STATEMENT OF SENATOR STEVENS

Senator STEVENS. Thank you very much, Mr. Chairman.

I am delighted to see you here today, gentlemen. I visited with the gentlemen previously. I have got another kind of war going on today, Mr. Chairman. It is called ANWR. Senator Bumpers and I will be leaving for that here in a few minutes. Arctic National Wildlife Refuge, it is another kind of war.

I want to say to you that, and particularly with regard to the comments the general has just made, I am not worried about the supplemental. I am worried about the problem we now have, an authorization bill starting and apparently some feeling that the authorization bill has got to be passed before we deal with the supplemental, and a recess coming up a week from Friday.

It does seem to me that we ought to be able to find a way to respond to the request for money, particularly to spend money that has been provided by other nations to pay a portion of the cost of this war, in a reasonable amount of time. It is part of the whole concept, I think, of making certain that the people of the country understand that we did support, Congress did support, the activities that were conducted there on the desert.

I am worried, Mr. Chairman, that we may not be able to get that supplemental to the President before we leave here. So I would urge you gentlemen to do everything you can to assist the committees involved to make certain we have the information.

There does seem to be some significant differences between these supplementals now, and with the authorization bill moving from the Senate over to the House, it again raises the specter I raised once before at this subcommittee, Mr. Chairman. I do not believe we should have to have a change in the law to provide the authority to spend the money that has been contributed from other nations to pay the costs of this war.

In any event, I am pleased to have your statement, gentlemen. I look forward to working with you. You have some real difficult issues in your area and we want to work them out with you so that we can get this done before we leave here a week from Friday.

Thank you, Mr. Chairman.

Senator INOUYE. Thank you very much.

I am certain all of us here echo your views, and I can assure one and all that we will expedite the processing of the supplemental.

The budget document that we are dealing with this morning is the product of much work that began about 18 months ago, and at that time I doubt if any of the budgeteers had any idea that we would be involved in such a massive conflict like Operations Desert Shield and Desert Storm. In fact, a year ago the Department of Commerce was in the process of setting up a trade fair in Baghdad to sell the Iraqis sophisticated ballistic missile technology.

A year ago we were prepared to sell them high-grade computers. In fact, a year ago we had signed an agreement to give them a line of credit of about $1 billion in the Export-Import Bank.

So all was peace. But today we find ourselves with a document that somehow does not reflect the realities. We have met with your counterparts in the Army and also in the Air Force, and both of them tell us about their problems. For example, they will not be able to meet the requirements of the authorized end strength for 1991, which in turn will give you problems in 1992.

END STRENGTH

Now, I am certain that you have those problems also, which will have waves and ramifications that will go on throughout your whole budget. Can you describe to us what your end-strength picture will be in 1991 and how it will affect the 1992 budget?

Mr. **Garrett**. Certainly, Mr. Chairman. We do have some problems on the Navy and the Marine Corps side, but we believe, because of the way that we addressed them early on, that they will be manageable. However, we will need some help, and it is reflected in the supplemental.

As you know, the Department of the Navy was directed by law to cut approximately 20,000 members from active-duty Navy and a little over 3,000 active-duty marines in fiscal year 1991. We are in the process, and have been in the process, of continuing to address those issues.

But we see a problem of about 8,000 people on the Navy side of the equation which really reflects a number equivalent to those who have served in the Persian Gulf on board *Midway, Wisconsin*, and *Missouri*. We have arrived at a point in the Department of the Navy such that when we reduce our end strength we have to reduce our force structure. Part of our plan for 1991 was to retire the two battleships and the U.S.S. *Midway*, all earlier than originally planned.

In the Marine Corps, we believe that the number is also addressed within the supplemental and is within the 1-percent waiver authority that the Secretary of Defense has. So we believe they are manageable within the Department.

I would ask the CNO and the Commandant to address that if they choose.

Senator **Inouye**. Admiral?

Admiral **Kelso**. I think ours are manageable, but we will need to stretch it out some. We cannot do it in the time we planned, so we need the 8,000 increase to go into 1992 and not drop it off to 1991, and I think that is being worked out, Senator.

General **Gray**. We will be all right. Being lean by nature, we can adapt to these unexpected problems more easily.

Admiral KELSO. We still, of course, have the 100,000-man cut that we are dealing with across the FYDP, that is somewhat exacerbated by this perturbation in 1991, sir.

Senator INOUYE. We are working on a multiyear plan, Mr. Secretary, as you know.

Mr. GARRETT. Yes, sir.

Senator INOUYE. This is an iffy question, but if we were confronted with the same problems that we were confronted with on August 2 of last year 5 years from now, with the force that we are projecting for that time, what would be the picture?

Mr. GARRETT. Well, sir, my own view is that we would be hard pressed to react in the same way that we reacted in August and through January/February 1991. That is not to say that we could not in my view. If, in fact, as the CNO points out, conditions continue to improve around the globe, as we look to the future, these are the kinds of regional conflicts that we would have to continue to address throughout the next decade, and probably into the next century as well.

That is not to say that we could—the Commandant used the term "sequencing"—that we could get everyone there as quickly as we did this time, because clearly our capabilities are going to be reduced 5 years from now. It would be more difficult in my view, but I do not believe it would be impossible, sir.

The Commandant and the CNO may wish to address that.

Admiral KELSO. Well, sir, in my judgment we clearly are reducing, and we are not going to have the same capabilities we have at the present time 5 years from now. We will be a Navy about 100 ships smaller by that time. In my judgment, we will not be able to react as well as we did this time, or probably as fast as we did this time.

So I think it is clear that there is going to be a change. We will respond, as the Commandant said, with whatever we have. But I do not think you can change the size downward without a reduction in capability.

The other thing is, how long could you sustain operations if you had to? The smaller you get, the harder it is to continue to sustain anything over a long period of time. This operation was fairly short, and if you had to sustain it longer with a smaller force it would be more difficult. So I do not think that there is any doubt but that it would be more difficult to do.

We will do what we have to when the time comes, with what we have.

General GRAY. Yes; in my judgment, you would not be able to do what we have done, particularly in the manner in which we were able to do it. I would suspect that Navy and Marine forces would still be able to arrive in a timely manner, but without some of the aforementioned depth that the Secretary and the CNO alluded to.

I would suspect that some of our contingency forces besides marines, 18th Airborne Corps, that type of capability, would be able to deploy very quickly. But over the long haul, in terms of the sustainability, the beans, the bandages, the bullets, the aggregate flexibility that you would need, you would have to do this in a different way. In my view, you would drive up the risk and I think that is the key.

When you look across the board at these types of regional situations, you drive up the risk. What is at risk is the ability to do it right. Clearly, you would not be able to provide much other presence around the world if you committed a major portion of the Nation's total force to a specific geographic region.

Mr. GARRETT. If I may, Mr. Chairman, I would like to add to that, to reinforce the comment made by both the CNO and the Commandant. In my view, that is where continued emphasis and investment in training and readiness are going to pay off in the long term as we get smaller, as will the continued investment in the high-technological weapons that I view as force multipliers. So I think it just emphasizes the point of continuing to modernize your forces, to make them as capable as you possibly can, as the overall force draws down in size.

General GRAY. I would like to add that within that construct, there is no question that our technological capability helped to shape the battlefield. But in terms of the operational art, it was the capability of all of the aircraft, including the less technical aircraft that contained the Iraqi forces. This less advanced technology was the second part of shaping that battlefield that made the big difference.

It is one thing to destroy or neutralize a bunker. It is quite another to contain an enemy force, and that is what we were able to do with our older weapons systems.

Senator INOUYE. I think all of us will agree that this is a moment of extraordinary euphoria and a great victory in the gulf. The war is now history.

SUBMARINE PRODUCTION

The Eastern European countries have all left the Soviet orbit and there are those who are suggesting that we should take this signal of history and begin cutting down our military.

May I ask a few questions, sir. In your budget how many submarines are we going to be procuring?

Mr. GARRETT. One a year, sir.

Senator INOUYE. Is it correct that at this time for the fiscal year 1992 the Soviets will have 10 submarines?

Mr. GARRETT. I believe the number is somewhat less than that, but that is close, sir. I think the number that were produced was 10 last year, and the number is somewhat lower this year.

Senator INOUYE. How many did we produce last year?

Mr. GARRETT. I would have to—I do not know how many we delivered to the fleet. In the budget we had two submarines—one Trident and one SSN–21.

Senator INOUYE. And they had 10?

Mr. GARRETT. They produced 10. I do not know what number they began in fiscal year 1990.

MODERNIZATION OF SOVIET NAVY

Senator INOUYE. Is it true that the Pacific fleet, the Soviet Pacific fleet, has now been completely modernized and the weapons platforms on these vessels have doubled their lethality over the last 10 years?

Mr. GARRETT. They have certainly increased their capability through their modernization program and, as I see it, Senator, they continue to do that. But I think it would be more appropriate if the CNO addressed that.

Admiral KELSO. I do not know if I could verify exactly one-half, Senator, but certainly the Soviets continued to build more modern and more capable platforms throughout this period of Mr. Gorbachev's regime. They have maybe cut back one or two programs, but in general they have continued a robust shipbuilding program, just as we thought they would. They have continued to modernize their ships and to come forward with more capable ships and platforms including, as you noted, submarines.

Senator INOUYE. And this is at a time when they have the economic problems? The production still goes on?

Admiral KELSO. Yes, sir.

Mr. GARRETT. Yes, sir.

Senator INOUYE. Is it also true that they are building an aircraft carrier?

Mr. GARRETT. They are building a 65,000-ton aircraft carrier, essentially equivalent to our *Forrestal*-class carriers. That is in addition to the *Kiev*-class carriers that they have built and are operating.

Senator INOUYE. Have they stopped the production line on ICBM's?

Mr. GARRETT. Not to my knowledge, sir.

Admiral KELSO. No; they continue to build and modernize their ICBM force.

Senator INOUYE. Have they stopped their production line on tanks?

Admiral KELSO. They have reduced their production line, but they have not stopped their production line, sir.

Senator INOUYE. So all is not glasnost and perestroika?

Mr. GARRETT. Well, I think from what I read, Mr. Chairman, the Soviet navy will enjoy some preference—at least that is the indication I get—as they continue on into the future from the military side of the equation. And I think that is evidenced by the points you have brought up here.

As I said, we know that there have been a number of assets transferred, aviation assets for example, to their naval side, as well as ground assets that were transferred out of Eastern Europe into their naval forces. So in that sense they have grown, and they continue to do so as the CNO points out. They have stopped one cruiser-class construction, but other than that I do not know that they have stopped.

Senator INOUYE. Mr. Secretary, I have many more questions. I just went through the first page.

Mr. GARRETT. Yes, sir.

Senator INOUYE. So I will wait for my second round.

Senator Specter.

STATEMENT OF SENATOR SPECTER

Senator SPECTER. Thank you, Mr. Chairman.

At the outset, I thank you gentlemen, particularly the Secretary here, who has been available to respond to quite a number of questions in informal discussions.

CARRIER BATTLE GROUPS

In assessing the issue of the number of carriers which the United States needs, I am at a loss to describe my reaction to the request for 12 carriers—somewhere as surprising to being very surprised to really being astounded; I note a smile on the Secretary's face—when I take a look at the record which has been established by the Department of the Navy as to what the Navy's needs are and what the needs of this country are.

Admiral Kelso puts it very accurately when he says we better be right in terms of what we are doing in terms of these assessments.

Last year when we were discussing the need for carrier groups and how many would be available depending on the total number in the fleet, the chairman of this subcommittee, Senator Inouye, asked a critical question, which appears at page 226 of the record:

"Senator INOUYE. So if you have 12, you will have 10 deployable, roughly?"

And the answer by Admiral Nyquist was: "It will usually be less than the total number of carriers you have in the force."

I was interested in the letter to the editor Secretary Garrett had published on October 1, 1990, where he said that at any one time roughly one-third of the Navy's carriers are fully combat-ready and forward-deployed, which would suggest the mathematics would be that if you have 12 it would give you 4.

We had a very extended discussion on the record last year as to the Navy's requirements for aircraft carriers, and the testimony was that the proper number would be 22 carriers and that 15 carriers would be prudent, and that the irreducible minimum would be 14. As Admiral Nyquist testified: "We are here defending a 14-carrier group," at page 223 of the record.

And as Secretary Garrett had commented publicly even before the hearings, one day before on May 14 of last year, that our readiness mission would depend on 14 aircraft carrier battle groups.

When the issue was raised as to what would happen if you reduce that number, Secretary Garrett testified about the difficulties in keeping the carrier groups at sea, and even with 13 deployable aircraft carriers, the time away from home was 8½ months and—this is Secretary Garrett testifying: "We would send our people to sea and we would drive them out of the Navy, as we did in the early 1980's, if we had insufficient number of carriers."

He said: "Our personnel work 81 hours on an average per week when they are at sea. If we lose, they start working 90 hours and 100 hours, and they start getting unsafe."

My question, Secretary Garrett—and I understand the constraints of the budget and the 5-year projection, and we have had others from the Department of Defense testify about the shortage of dollars. And in addressing this question, I am dealing solely with the national defense issue. It is obviously the case that a Senator may take a closer look at the national defense implications when there are State concerns involved, but I am not basing any of the questions or positioning here on parochial needs of Pennsylvania. I am addressing this strictly in terms of national interest.

But considering the problems which we have had in the intervening year in the gulf, where we had six carriers at sea and we were fortunate enough, through the tremendous talent of the U.S. military forces, to have a very short war, and it would be easy to project a longer period, 1 year, 1½ years, and it would also be easy to project a problem in another area, how can we possibly get along with 12 carriers?

Mr. GARRETT. Well, I think the real issue is the point that the Commandant raises. As we get smaller—and I think it is clear, certainly it is clear to me, Senator, that we are going to get smaller—that we increase the risk. We increase the risk in a lot of ways. We increase the risk, as I pointed out in last year's testimony, as to whether or not you retain your people if you keep them at sea for long periods of time and they tire of that. This is an issue of risk.

And what we have tried to do, as we address the issues across the spectrum of naval warfare, is to reduce the size of the Navy in a balanced way. The CNO will recall when we discussed this issue a couple of years ago—as we looked out into the future and saw that the budgets were going to come down and come down dramatically—the question was, what is it we wish to preserve in the Navy and how can we ensure that we can reverse the process if, in fact, circumstances in the world do not continue in the benevolent way that they started?

Our conclusion on that was, we would try and preserve to the maximum extent possible the carrier battle groups. But at the same time, we recognized the requirement to maintain a balance across the Navy. It is in the context of maintaining that balance that we went down to 12 deployable carriers.

As you know, the *Forrestal* will become the training carrier in Pensacola, but it will also be capable of being reverted to an operational carrier within 180 days. So that would give us 13 operational carriers. But this is, again, a solution that is driven by a multitude of factors that have to be taken into consideration, not the least of which is affordability.

Senator SPECTER. Mr. Secretary, I understand the point of balance. But last year when the testimony was that 15 were prudent, that a 15-force was prudent, and that 14 was irreducible, and we have seen the increased dangers in the interim which would raise that number, not lower it, is it not a fair assessment that 12 simply are imprudent?

Mr. GARRETT. Going to 12 certainly increases the risk, unless there are changes in commitments. I would hope that over time we will see changes in commitments that existed heretofore, so that if you have to have your carriers deployed you may not have to have four deployed simultaneously, as we have in the past.

Senator SPECTER. Mr. Secretary, I asked the question in some detail about what commitments could be reduced, because that was a similar answer given last year, and I do not have the time in my first round to read the material which was provided for the record when I pressed Admiral Nyquist and you for the commitments.

But it starts off with: "Fifteen is a prudent aircraft carrier level," and then it details in fine print to some substantial extent the risks where you have less than 15. And it seems to me that the conclusion is inescapable that, to use the Navy's term "prudent," that 12 would be imprudent.

And it is no secret, I would like to develop a record today that I can take to the floor of the Senate to make an evaluation as to where we ought to be.

Mr. GARRETT. Yes, sir.

Senator SPECTER. Let me press you once again. Is 12 not imprudent?

Mr. GARRETT. I can only say again, Senator, that going from 15 to 14 to 12 increases the risk, and if you go below that number, of course, you increase the risk even further. Whether or not that equates to being imprudent I think is a question of—it is sort of in the eye of the beholder.

Senator SPECTER. You would not argue with a Senator who said it was imprudent?

Mr. GARRETT. I would not argue with you, sir. But as I just indicated, my belief is that we have increased risk. And I would like to point out that we just had six carriers deployed simultaneously for the first time in many, many years. And, we had three, if you will, in hot standby. The real issue as I see it over time is whether or not, as the CNO pointed out, you have the ability to sustain a presence over a long time. And that is the problem we ran into in the late 1970's when the *Eisenhower* deployed for 8 months. If you do not have the assets to come in behind and replace those on station, as we had in this situation, then you increase the risk of losing your people; you have increased the risk of keeping ships on station longer than is advisable because of the obvious maintenance problems.

So there is increased risk, there is no question about that, sir.

Senator SPECTER. Well, Mr. Secretary, I will not push that issue further because I understand the constraints that you are operating under, and I have a sense that if you were unfettered in your own evaluation—you are a good soldier, you are a good sailor. You are in the chain of command. We all understand that. So I will not push it further.

I will just ask you one more question. I think my time is almost about to expire. Well, I will come back to it in the next round, and that is on the comparison of this naval carrier power contrasted with the B–2 bomber or some of the tremendous assets which are in the strategic line, where the record is pretty plain that the risks are much lesser than with a Saddam Hussein, an Iraq, and other commitments around the world which need naval power.

Thank you, Mr. Chairman.

Senator INOUYE. Thank you.

Senator Rudman.

Senator RUDMAN. Thank you, Mr. Chairman.

I only have a couple of questions. I have a question for the record that Senator Domenici asked me to submit to you, Mr. Secretary, and I will do that.

General, I have been fascinated by most of the interest in what has gone on in the past several weeks with the high concentration

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of public interest, naturally so, on smart weapons, high technology, extraordinary training, and so forth.

But in many ways what we have seen in the past several months has been the vindication of policies put forth both by the Marine Corps and by the Army in different forms. It has been truly a marvel of logistics in terms of the time, something that has been lost on many.

I want to talk about what I have always referred to in my own mind as the Marine Corps' floating POMCUS sites, the MPS program, of which you have been a very strong advocate. Could you just fill out the record a bit? You make some reference to it in your prepared remarks, but where would you have been without that strategic concept, which was fully supported by this committee and by others in the Congress? But there were some doubters about that.

MARITIME EXPEDITIONARY FORCES

Could you tell us about what that meant in terms of deployment of your expeditionary forces?

General GRAY. Absolutely. We deployed all three sets of our maritime prepositioned forces—a total of 13 ships plus 2 aviation support ships and then rounded out with the 2 hospital ships. The deployment of these assets was really a significant operation that made a difference in terms of early preparation to defend Saudi Arabia.

The concept, as you know, is a little over 10 years old now, and it had the support of the Congress and the Defense Department. We built some new ships and reconditioned other ships. We prepositioned equipment for three mechanized armor brigades, about 17,000 marines and sailors in each brigade; an air-ground logistics team under a common commander, with 30 days of sustainment.

We move these ships around from time to time. One set was based in Diego Garcia, one in the eastern or western Atlantic, and one in the western Pacific, operating out of Guam.

The idea here is to be able to use, in concert with the Air Force, about 249 sorties of C–141 equivalent aircraft per brigade to provide all of this power at a given point. It complements the assault from the sea and our forcible entry requirements. When you have a situation, as we had in Saudi Arabia, with ports that look like they were designed for sailors, marines, soldiers, and airmen, and airfields that looked like they were built for us, the problem of force buildup is much simpler.

This capability, however, does not come just by loading ships or just by providing equipment. We also have, for example, prepositioned ships with Air Force equipment at Diego Garcia and prepositioned equipment for the Army at Diego Garcia.

What you have got to do is organize, train, and tailor a force. The force has to train and play the what-if game and periodically you must exercise this capability, as we have done in Egypt, in Thailand, in Korea, and along the east coast. You have to make an investment in operations and maintenance to keep that capability razor sharp.

Additionally, we have been able to save extraordinary funds by spreading out ship recycling. By that I mean when the ships come back in for overhaul and upkeep and we take certain equipment off and replace it with more modern equipment. Initially we thought we would have to do that once or twice a year. We have now learned that the ships and the maintenance program are in such good condition that we can recycle every 1½ or 2 years.

It is a terrific capability, and it is provided for in future budgets. I think we should continue to modernize and upgrade the capability as we continue in the future.

What the maritime prepositioned forces did, along with the Marine aircraft that self-deployed into the theater and the amphibious forces that were already at sea moving into the gulf, as the Secretary alluded to, gave you the first real sustainable combined arms team of any size in Saudi Arabia.

Senator RUDMAN. As a matter of fact, I believe I am correct that the first of the three squadrons was on site in the theater, in the port, within about 1 week of the time it was called on; am I correct?

General GRAY. Yes; about 8 days. And in addition to the 7th Marine Expeditionary Brigade, we deployed the 1st Marine Brigade from Hawaii as well. We then consolidated by bringing forces from all around the world, forming a Marine expeditionary force.

We advertise that we can go anywhere in the world and be fully operational in 8 to 10 days with this capability. In Southwest Asia, we did it a little quicker than that.

Senator RUDMAN. And, in fact, you deployed all three of the MPF squadrons——

General GRAY. Yes.

Senator RUDMAN [continuing]. Before you were done.

General GRAY. And again, force sequencing consistent with what General Schwarzkopf wanted in theater. It is clear that we could have done it quicker. For example, we could have moved the MPF ships during the warning time, even at the end of July. We could have made an even more dramatic entrance. But forcible entry was not necessary.

Senator RUDMAN. You referred to it in one of your answers, but let me just make sure of this. Am I correct that in terms of the MPS squadrons, in terms of the outyear planning as we look at the stepdown in manpower and in other equipment, that we are maintaining these pretty much intact?

Mr. GARRETT. Yes, sir.

General GRAY. That is the plan at this time; yes, sir.

Senator RUDMAN. Of course, I think it is absolutely essential, because if you do not have that then no matter what you do with your training, you may get your troops there in time, but they are not going to get there with the equipment they need; am I correct, General?

General GRAY. Absolutely.

There is one other aspect to MPF ongoing. We are in the process of backloading tactically out of Saudi Arabia, because that is what you would expect us to do. We want to keep our readiness high and we want to do it safely. We will backload or reconstitute one of these squadrons with all its capabilities so that it will be immediately available in the region.

And through some additional study and analysis, we have deployed a system called crisis action modules. Using what we call a deployment force system or crisis action modules, we will backload these ships and even have a better, more flexible capability in the future. We have learned now that we can use the ships one, two, or three at a time. It will not be necessary to use the whole set.

Fundamentally, we can put a brigade of 15,000 to 20,000 warriors anywhere in the world in a few days, and a force of 35,000 to 50,000 in a week. We are pretty high on this capability. We think it will go a long way toward meeting much of the Nation's contingency and crisis requirements in the future.

Senator RUDMAN. I just want to say to the Navy, which operates these ships, and to the Marine Corps, that we have listened to your testimony on these matters now for 10 years, and you billed it as a particularly unique way of marrying fast air with heavy sealift and global positioning, and it worked.

Of course, I think the American military has always been known for its extraordinary logistics ability. But this truly, when you study what was done, was remarkable.

Let me turn just briefly from logistics to tactics. And again, General Gray, I do not mean to burden you with all the questions, but I have got a couple for the record for Admiral Kelso.

COMBAT CAPABILITY

I want to ask General Gray just one other question. You found yourself in a unique position in the early weeks of your marines being employed with not all the armor you probably would have liked at that particular time, considering at least the potential of the opposing forces, which were fairly heavy on the armor side. You relied pretty heavily on your inherent weapons with your brigades, with your battalions, your TOW's, and other weapons. And, of course, you also depended very heavily on your Harriers and their antitank capabilities.

How did that all work out, General Gray? You had a period there where you were relatively exposed. Did the Corps feel relatively comfortable with its situation had there been an attack led, let us say, by heavy armor?

General GRAY. Yes; we were of course concerned in the early stages, as you would expect us to be. But we were relatively confident we could handle anything that would come our way. First, we had carrier battle groups in the Persian Gulf region. We had a substantial Marine air capability flown into the theater, and it was deployed well forward, so that we could have capitalized on quick sortie rates. We had all but four of our AH–1W helicopters, our TOW and Hellfire helicopters, deployed into the region for armor-antiarmor protection. The M60–A1 tank, which was still on our prepositioned ships, is a good tank. It was there because we were, properly so, at the end of the M–1A1 tank buy. The priority, again rightfully so, was with the Army.

We wanted the 120 mm cannon in the upgraded version of the M–1A1. We accelerated our delivery of the tank and fielded one M–

1A1 tank battalion in Desert Storm, with another scheduled for fielding in March, had that been needed.

But the M60–A1 is a good tank and we upgraded it with bolt-on reactive applique armor. We also upgraded our light armored vehicles [LAV] with a passive armor. The light armored vehicles performed superbly for screening, for reconnaissance, and indeed, killed their own share of Iraqi armored vehicles during the fight.

We also made extraordinary use of our remotely piloted vehicles [RPV's]. We had three companies of RPV's deployed ashore and two detachments, one on each of the battleships.

We also received an extraordinary effort from our signals intelligence units which you would expect. So when we assess all of those capabilities and look at the armor-antiarmor, air-ground logistics team, we were in pretty good shape. In order to provide sustainment, we had our supplies deployed forward and we backloaded some of the maritime prepositioned ships for floating supply dumps. Each ship, by the way, makes 20,000 to 25,000 gallons of water a day and can pump fuel ashore as well.

In addition to the Marine and the Navy team and the air-ground punch, we had a super 82d Airborne unit there that we have operated with before. We had very fine tactical fighter squadrons introduced into the country from the Air Force. Additionally, from day 1 we had an air command and control capability, both afloat and ashore. We had the Saudi and the United States AWACS aircraft and we had the Navy Aegis cruisers. We had the Marine facilities ashore that can exchange tactical data with everybody. When all these systems were taken into account, we had a very fine integrated system.

So, from a certain standpoint early, yes; some concern. But every day that went by, we were in a little bit better shape. We knew that we could maneuver, we knew that we could disrupt them. We were deployed in depth because we did not know when and where they would attack.

Every day we, and our allies, got better. Our allies were our right flank, the Saudis, the Kuwaitis, the forces from Qatar. We had marines operating with all of them, training with them throughout the operation. You could see the combined competence grow on a daily basis.

Then we had our own reconnaissance and special operations capability and other special forces in the theater. So again, each day the capability got stronger. There is no way, in my judgment, that the Iraqi army could have held very much real estate for very long in Saudi Arabia. They would have eventually been taken out. But the depth of the Armed Forces in theater, and their ability to handle armor-antiarmor, and to maneuver, was the key.

ENGAGING ENEMY ARMOR BY AIR

Senator **RUDMAN**. In fact, the doctrine really worked. Although there were some armor engagements, to a large extent the doctrine of engaging enemy armor by air, both with fixed wing and rotary wing, well out in front of the armored and infantry forces, essentially worked throughout the campaign, did it not?

General **GRAY**. Yes; it did. The AV–8B's, the helicopters, the Air Force A–10's all were superb. But what you had, again, was a combined arms look at the situation. You had forces protecting each other, providing suppression for enemy air defenses, providing reconnaissance, moving where the Iraqis were not. You had a good targeting effort. We received a great deal of help from JSTARS and from the remotely piloted vehicles.

Senator RUDMAN. General Gray, thank you. And as I said, I will have some questions for Admiral Kelso and Secretary Garrett for the record. But let me reiterate what our chairman said. I hope, General Gray, because you and I have been friends for a while, I hope this is not your last appearance before the subcommittee.

But if it is, you have been just an exemplary Commandant of the U.S. Marine Corps and we have been proud to have you before the subcommittee.

General GRAY. Thank you, sir. I have been very fortunate to serve with the tremendous young men and women in all of the Armed Forces. They are the ones that deserve the credit. But thank you.

Senator INOUYE. Senator D'Amato.

Senator Leahy.

Senator LEAHY. Mr. Chairman, would the Senator yield for a moment, because I am going to have to leave to go down to the White House for Secretary Madigan's swearing in ceremony.

I wanted to be associated with the last comment made by my neighbor from New Hampshire. I have the utmost admiration for General Gray, and I know that admiration is shared by every Member of the Senate I have ever discussed this matter with.

Thank you, Mr. Chairman.

STATEMENT OF SENATOR D'AMATO

Senator D'AMATO. Thank you, Mr. Chairman.

Mr. Chairman, it is my intention to offer an amendment during the markup of the emergency supplemental requiring the Navy to spend the money, which was authorized and appropriated last year, for F–14 remanufacturing. My amendment will require that no additional funds be expended.

To be quite candid with you, Mr. Chairman, I am amazed that we have arrived at this point. And to go further, it seems to me that when we talk about naval aviation, it is in total disarray. Let me just touch on several things.

The P–7 and the A–12 terminated for default; the T–45 struggling. But yet, where do we see the Department of Defense and the Navy coming down? On the very program that has met its goals, has done it within cost, within budget, on the F–14. And Grumman is all but being hounded out of business, and that is the reality of what is taking place.

I am sure I am not alone in my curiosity as to why this is taking place. I see from the statement of Admiral Kelso, for example, that we now have a new heralded aircraft, the F/A–18 E and F. It is being touted as both a complement to the AX, successor to the defunct A–12, and a follow-on to the F–14.

You cannot logically explain to this subcommittee or to the Congress or to those people who want to look into this carefully how you can come up with that. It is indefensible. It flies in the face of fact and reason. What you are doing is carrying water for the Secretary of Defense that you do not even want to carry.

Now let us examine it. The F–14D represents a capability which is here and now. It boasts a new engine, a better radar, unique passive detection capability with the infrared search and track system, and digital avionics providing additional processing capability, better navigation, improved electronics warfare performance, secure voice-data link, and the flexibility to incorporate new weapons and black boxes.

Now, rather than build or remanufacture the F–14D, however, the Navy has opted for what? A $4 billion, 5-year redesign effort of the F/A–18 that is so radical that it properly should be termed a new start. And it is risky and it is expensive and it is $4 billion, and we talk about 5 years in its development, in the face of all of the other failures.

It is indefensible. You are saying, we are going to bail out one corporation that has already spent billions, that has squandered it, that has already been terminated. But we have determined that we are going to save them.

It does not make a difference that we have got a plane, the F–14, that we have already sunk $1 billion in, that is a better plane, that will outperform even this upgraded new risky start. Now, those are the facts.

Now, I do not know if I can get the Congress to really listen. I do not know whether we can get the Senate to really take a look at this in depth. I have to be candid. People are busy. They have got their own interests.

What you are doing is a disservice to the taxpayer and it is not right. Whether or not Grumman comes from Podunk, the fact of the matter is that what you are doing is making a determination as to what manufacturing base will be here, and you are not doing it on the merits.

If this risky, expensive, and time-consuming endeavor is more successful than the last few development projects undertaken by the Navy—and I doubt it—the product, the F/A–18 E and F, still, if you get it, it is still not going to match the capabilities of the current F–14D. The justification for the F/A–18E/F eludes me. I wonder why? It cannot outperform it in its air superiority mission.

Now, let us look at the F/A–18. No matter how radically redesigned, it is simply not big enough to have the range, payload, endurance, or radar capability of the F–14D. Were you to make it big enough, you would have the F–14D. If you are going to enlarge it, that is what you are going to have, except that you would have paid for it twice.

Now, of course, you may argue that the Navy can no longer afford the single-mission aircraft, that swing assets are the wave of the future in these times of fiscal constraint. Now, if that were really true you would save 4 billion dollars' worth of precious development dollars, and for an investment of tens of millions of dollars, fund the proposed F–14D Quick Strike software package. This low-cost, low-risk upgrade would help fill the gap left by the cancellation of the A–12 by exploiting the inherent strike capability of the F–14 design.

By building additional D models or remanufacturing A's into D models and adding the Quick Strike package as part of the already established predeployment update, the Navy could enhance deck flexibility by improving both the fighter and the strike qualities of the F–14 fleet.

Such an F–14D, I might add, would outperform the F/A–18 E and F in terms of range, payload, time over target, and at a minute fraction of the cost, and without the inherent risk of a new start.

So, Mr. Chairman, I put this forth before the subcommittee because I believe if we are talking about budgeting, if we are talking about getting the most for the dollar, that the F–14 should be continued. And I would ask one question. I do not know if time permits. Specifically how will the F/A–18 E and F outperform the current F–14D in the air superiority role? I do not know whether my time is sufficient, and if not they can answer that thereafter.

Senator INOUYE. The question has been asked.

F–14

Mr. GARRETT. I think it is too early for a definitive answer, to be very honest with you, Senator D'Amato, we are still working on the F/A–18 E and F program as we put it together. I am not sure that the conclusion will be that it will outperform the F–14 in particular mission roles. It is obviously a dual-mission aircraft and we are examining the F–14D to determine its capability in the dual-mission role. But I am not sure that the answer will be that, given a particular scenario in which you may find yourself operating, that it will or will not. I am sure the F/A–18 will prove very effective in some scenarios and will not in others. The same could apply to the F–14.

Senator D'AMATO. Well, Mr. Chairman, I want to thank and commend the Secretary for his candor. I recognize that he and the Admiral have constraints, but I have to suggest to Admiral Kelso, to say that the F/A–18 E and F can really be the plane of the future, it can be, but certainly it is not going to give to our flyers and to our defense the best, and it is going to cost more.

And I respect the Secretary for his candor and I think in his answer, if those who are interested listen very carefully, it raises further the question: Are we just going to have something that comes about because the Secretary of Defense has made up his mind that the F–14 should not be, regardless of what the merits of it are or are not?

I would not think that he would want to do that. I would think that maybe initially his decision as to saving money could be justified. But with the A–12 going down, with it not being able to meet its goals, it would seem to me that that should be reevaluated.

Mr. GARRETT. Senator D'Amato, may I for the record clarify that it is not the intention of the Department of the Navy, nor is it my belief that it is the Secretary of Defense's intention, that the F/A–18 E and F to replace the A–12. We are proceeding with the development, a follow-on to the A–6 and A–12, which will be an all-weather, night-capable, carrier-suitable attack aircraft. That has been and will remain our No. 1 aviation priority for some time.

Senator D'AMATO. What century will that be undertaken?

Mr. GARRETT. It will be undertaken in the 1992 budget, sir.

Senator D'AMATO. Well, thank you, Mr. Chairman.

Senator INOUYE. Thank you.

Before I recognize my distinguished friend from South Carolina, I would like to note, especially for the young students who are visiting us, that the lack of membership participation at this moment does not in any way indicate lack of interest.

At this very moment we are in the midst of eight hearings by major Senate committees and many of the members of this subcommittee are also ranking or chair people on these committees, so they have to go in and out. I, for one, am at this moment playing hookey from three other committee hearings.

So I do not want anyone to get the idea that, since we do not have the full committee here, no one is interested. I think it should be noted that every member of this subcommittee at one time or another did report to listen in on the testimony.

With that, may I call upon the distinguished Senator from South Carolina, Senator Hollings.

STATEMENT OF SENATOR HOLLINGS

Senator HOLLINGS. Thank you, Mr. Chairman.

And let the record show that I am not meeting with my mayors from all over the State of South Carolina because I wanted to be up here on Defense Appropriations, and there are other meetings going on.

First, Admiral Kelso and Secretary Garrett, we had to correct Navy history on Saturday in commissioning the U.S.S. *Cowpens*, an Aegis cruiser. We noted for the record that it was an Aegis cruiser that landed the first bomb on Baghdad, not a battleship. The fighting cruiser *Bunker Hill* does not have a press section like battleships do, and we wanted to correct that naval history.

We also wanted to correct the history about the 100-hour war. The crew of the U.S.S. *Nicholas* would resent that because 900 hours before the 100-hour war the *Nicholas* knocked out 12 platforms and took the first prisoners of war of the gulf war.

Finally, that statement that the war is over is totally inaccurate. We are still out there dodging those mines and enforcing the naval blockade. It is with that feeling then, that I come with appreciation for all three of you, and particularly General Gray. You are not only first in war; you are first in peace.

When we had Hugo, Mr. Chairman, I could not get any help up here except off the Army-Navy Golf Course, where the Commandant was playing that Saturday morning. He came off the golf course and by evening we had Lieutenant General Cook and the Marines taking the refugees, you might call them, off the roofs of churches in McLellanville and Monks Corner.

Any time that you want an assignment down in our area, you have got one, I can tell you that right now, and it is out of sheer gratitude. You have done a wonderful job for us in the service and I hope you can continue.

MAGIC LANTERN

With respect to dodging those mines out there, Admiral Kelso, lets talk about Magic Lantern.

Or Mr. Secretary, you probably can answer that, because you know we finally got, after the argument—they wanted to research it and research it and research it until the year 2000—we got Magic Lantern out there to the gulf and we found dozens of mines deep down. It is working.

We have got two other systems now in the supplemental at $9.2 million, and we are trying—somebody went and fenced it. I am going to try, Mr. Chairman, to take off that fence, because we are still fighting the war. We need that equipment.

Have you got a comment on that technology, which represents a leap forward in naval defense against mines?

Mr. GARRETT. Well, certainly we are impressed and encouraged by the results we have had with Magic Lantern. As you know, we started with alacrity when we look at some of these systems during Operation Earnest Will, which lasted almost 2 years. Right now we are looking at distinct Marine Corps requirements and systems—as you know AMDAS and Magic Lantern. We hope to resolve the issue as to which direction we go very soon. But we are very encouraged by the results we have had to date.

SEALIFT

Senator HOLLINGS. With respect to our sealift, there is a difference in atmosphere now, one of victory and very deserved. But back in November, the first part of December, there was a meeting of what they call the admiral of the ocean exercise up in New York, and former skippers, merchant mariners, and everyone else were talking about the different ships and the ones that had broken down.

One RORO went into Spain for repair and three other ships had trouble as well. At one time in August, the first part of September, they thought we were invading Spain rather than Saudi Arabia.

That is vivid in my mind because we had an adversary that gave us 6 months to get out there and get ready. And we have been meeting over the years, Chairman Inouye and myself on this committee, and also our State, Justice, Commerce Subcommittee in Appropriations there, to improve our sealift.

We need a reconciliation there, Mr. Secretary, to really go forward now. General Vuono, he wants to take two armor divisions and have them there anywhere in 30 days. Well, he needs even more RORO ships probably, some stationed with regular Navy crews. Have you got a comment about that, so we can have that preparedness?

Mr. GARRETT. We have looked very closely at the experience that we have gained from Operations Desert Shield and Desert Storm, and I think it can only be viewed as a success. That is not to say it was not without problems. But, we moved more equipment—over 9 million tons of equipment and POL—further and faster than I think we ever have in the history of this Nation.

The one ship that broke down was scheduled for overhaul or maintenance and we took the calculated risk to impress her into service. As it turned out it was not a good decision. That was one of the fast sealift ships, one of the eight. But they performed magnificently with that one exception.

Of the Ready Reserve Force, we pulled 71 of the 91 ships out of the Ready Reserve Force. And while it varied in the times that it took to get them ready, I think they performed very well.

What we have taken away, at least initially, is that we will continue to work closely with the Joint Staff on the mobility requirements study. But I have asked the CNO and the Navy acquisition executive to take the lessons learned that Admiral Donovan has conveyed to me and to the CNO—clearly we do need additional RORO ships. I have asked them to examine and develop a program which will speak to the issue of the design and construction of some RORO ships of the speed that we have today. They are also to look at the open market to see what is available because we may ultimately get a better deal for the taxpayer if, in fact, there are assets available. But we are doing that at the same time that we watch the mobility requirements study that is being worked at the direction of Congress.

Senator HOLLINGS. Let me ask one more quick one. While we got that 71 in, I think the majority went in foreign bottoms. We were leasing, as you were talking.

Mr. GARRETT. We leased domestic commercial as well as foreign-flagged vessels, although the percentage of equipment that was carried by the foreign flags was, I think, no greater than 20 percent.

Senator HOLLINGS. What went in by way of troops into the gulf war by way of sea and by way of air?

Mr. GARRETT. I think in excess of 94 percent of the troops went in by air. At the same time, well over 94 percent of the equipment and fuel/oil went in by ship.

Senator HOLLINGS. On maintenance, and you mentioned that, we see, in fact, in your request that you have increased Active forces ship maintenance from $2.402 billion to $2.4899 billion for next year. The funds for maintenance overall go up and it is easily recognizable now that all the maintenance work needs to be accomplished, as you are now attesting to.

Yet, when we were commissioning down there in Charleston on the weekend they were talking about a reduction in force and that the work there was going down significantly. How do we reconcile that?

Mr. GARRETT. Well, that is a function, Senator—and I do not see that changing—of going down from in excess of 500 ships to 450 ships over time. That universe is going away, the universe for which we were planning maintenance into the outyears; submarine overhauls and things of that nature. They will be going, instead of into overhaul, out of the fleet. One of the issues that we are dealing with now is a great deal of maintenance that was planned to have been performed, has been deferred as a result of in excess of 100 ships being deployed with short notice to the gulf crisis.

Senator HOLLINGS. But they will be coming back.

Mr. GARRETT. They will be coming back. What we are going to see is that deferred maintenance will have to be performed, and we will see an increase, in the short term, of required maintenance that was deferred. But as you look out into 1992, 1993, and beyond, if we go down to 450 ships, which we certainly anticipate, the maintenance and overhauls planned for those ships, that would otherwise have been in the fleet, will not be performed, and for that reason we are going to see a reduction across the board.

Senator HOLLINGS. But in 1992 it is going up. And you were there in December and you could see the facilities, the capabilities, and everything else.

Mr. GARRETT. Yes, sir.

Senator HOLLINGS. We could certainly, rather than cut back, get some of that done right there most economically.

I thank you, Mr. Chairman.

Mr. GARRETT. Thank you, Senator.

Senator INOUYE. Senator Sasser.

Senator SASSER. Thank you very much, Mr. Chairman.

Mr. Chairman, I want to welcome this morning the Secretary and Admiral Kelso. I might say that Admiral Kelso is probably the most famous naval officer to come out of the State of Tennessee since Admiral Farragutt, so we are always very proud and delighted to see him here this morning, and also the Commandant of the Marine Corps, General Gray.

P–3 PATROL SQUADRONS

Admiral Kelso, I would like to ask you, sir, how you would assess the Soviet submarine threat at the present time, or do you perceive it as a threat to the United States, to the continental United States?

Admiral KELSO. Of course, a threat always depends upon your willingness to use something. But in comparison to any other threat to our Navy, or to seaborne trade that is necessary for this Nation's lifeblood, the capability exists more in that force than in any other in my opinion to interdict it, sir.

Senator SASSER. I will tell you what prompts that question. I understand that there is going to be a reduction in the number of reserve P–3 patrol squadrons, which are engaged primarily or exclusively in antisubmarine warfare. Now, these squadrons can be operated at approximately 40 percent of the cost of an active duty squadron, I am advised.

And I have a parochial interest in this, I will be quick to confess, because one of these squadrons is located at the Millington Naval Air Station outside of Memphis, TN.

And I think we have all got to realize that as we phase down in reaction to what is occurring in the Soviet Union and what has occurred in Eastern Europe—the Warsaw Pact is now a thing of the past, effectively—we have all got to realize that it is not going to be quite as much fun to build down as it was to build up, and that includes those of us here in the Congress and some of us on this committee. And I am willing to take my share of the medicine.

But I would just ask, inquire as to the rationale of why we would want to be phasing down about 40 percent—or phasing down these P–3 squadrons when they can operate at about 40 percent of the cost of an active duty squadron, either you, Admiral, or the Secretary, whoever wants to address that question?

Mr. GARRETT. I think both of us would like to address that. If I may initially, as you know we have taken down, in previous years, the number of aircraft in our Active VP squadrons. I think that resulted essentially in the equivalent of a loss of three Active squadrons.

This year—in 1991—again because of end-strength cuts, that is the 20,000-man cut that the Navy faces, we have taken out an additional four Active squadrons from the maritime patrol aviation community. And where we are going, Senator, as a result of the change in the world situation, as well as the change in the budget, is to approximately 18 Active squadrons and 9 Reserve squadrons. That is consistent with our experience which shows that it takes essentially two Active duty squadrons to properly man one Reserve squadron; that is, the people who rotate out of active duty and go into the Reserves. That has been our experience.

CNO?

Admiral KELSO. I think, Senator, it is part of, as you say, the total budget reductions as we try to balance the force. We have to come down both some in Active and some in Reserve to make it work and have the right kind of ability to recruit into the Reserve squadrons. Plus there is just a total reduction in money available for us to operate both Active and Reserve Forces.

Senator SASSER. Well, thank you, Admiral.

Mr. Chairman, I am very pleased today that General Gray is here, and I want to associate myself with the remarks made earlier by Senator Rudman. I think that General Gray is probably no doubt the finest Commandant of the Marine Corps that has been here in my 14 years of service in the U.S. Senate, and I want to commend him for an outstanding performance.

MARINE CORPS PERFORMANCE

I also want to say to you, Commandant, that I was most impressed with the performance of the Marine Corps in the Persian Gulf area, very impressed with the performance of Lieutenant General Boomer in the press accounts that I read of his activities, his press statements, also his appearances on the electronic media. And I might say, among the general officers in that region I think he probably may have been one of the unsung heroes, at least from my standpoint.

There were some anxious moments, General Gray, when the marines first went into Saudi Arabia and were there almost by themselves, with some of those Iraqi heavy divisions not far away, the marines without much armor or much protection against these heavy divisions. But it all turned out very well later on.

If you were to reflect back on this whole operation—and I might say that I think one of the greatest things, the greatest achievements about the victory in that region of the world was the logistical end of it. It was a logistical masterpiece. I am just astonished that we could move men and personnel and materiel that far that fast and sustain them the way that we did.

And, of course, the Marine Corps has always taken the lead in these logistical operations, particularly sustaining amphibious operations.

If you look back on this whole campaign, General Gray, what would be a lesson that you would take away from it? What have you learned from it?

General GRAY. We would certainly want to underscore the need for joint and combined operations and those types of thought processes. We believe that this was done extraordinarily well. In our posture statement, for example, we look to the future and say that the Nation clearly needs an aerospace strategic idea or concept. We are all heavily dependent upon that, as we were in Desert Shield, Desert Storm, and as we are in the commercial or private sector.

Clearly, we need to have a land capability. This operation was a masterpiece of air, land, and maritime strategic thinking. Although some refer to the doctrine as an air-land battle, it was an air-land-sea-maritime battle. I predict the name of the doctrinal process will change to that in the near future.

Within that construct, the need to move forces more rapidly must be measured against forces that can sustain themselves. Again, as we said in the statement, you have got to get there fast, with logistics or supplies that last. So there has to be a combination of considerations.

Clearly, our thoughts in the future with respect to a maritime concept are well known and I think well understood. When we can integrate these strategic thoughts into an integrated strategy for the future, then and only then, will we draw on that synergism. Then and only then, will we have a prayer, really, of giving the Nation the kind of security it demands, given the defense resource allocations predictions of the future.

The bedrock of this concept was demonstrated in Desert Shield and Desert Storm. Does it mean that we could not have done some things better? Obviously, you always can. Does it mean that we can rest on our laurels or prepare for the last campaign again? That would be, in my judgment, a great mistake.

We must take the right lessons from Desert Shield or, for that matter, Panama, or Grenada, or any of the other activities that we have been involved in this past decade. That would mean, when you have the opportunity to use friendly real estate, when you get invited in, when there are suitable ports and airfields, then clearly we can adopt one method of operation and do it very well.

Should we need to use forcible entry, then clearly you need to come from the sea. That does not mean that you do not need an airborne capability. It does not mean that you cannot do certain selected activities. What it does mean is that from the sea, we moved 95 or 96 percent of all our support. Coming from the sea is the way you have to do an operation to sustain yourselves.

So we must be prepared for forcible entry from the sea. In the future we must be prepared to go into harm's way and to do some of the same things that we had to do to prepare for Desert Shield and Desert Storm.

So these are but some of the lessons that we would take from this operation. Clearly we would like to amplify that for the record, sir.

[The information follows:]

Probably the most significant "lesson learned" was the continued reliance the Nation places on having a truly expeditionary "Force in Readiness." This lesson is not new. It only reinforces what our national leadership learned almost 40 years ago in Korea. Operations Desert Shield and Desert Storm serve to revalidate the Nation's need for rapidly deployable general purpose forces. Wars of the future will break out with little or no warning. We can never predict the time and place of the next challenge with 100 percent confidence. That means maintaining a battle ready expeditionary force to fight across the conflict spectrum anywhere around the globe. The aggregate utility of these expeditionary forces has been proven time and again.

FORCE SIZE AND STRUCTURE

Desert Storm also validates the air-ground-logistics team concept by which the Marine Corps organizes its forces for expeditionary service. The Marine Corps organizes its forces into Marine Air Ground Task Forces (MAGTF) which includes integrated aviation and logistics components. This organization for combat takes advantage of the inherent synergism of combined arms; including armor, artillery and aviation capabilities. These integrated MAGTFs routinely train and exercise together under a common warfighting doctrine. In Operation Desert Shield, the Marine Corps, in concert with its Navy counterpart, provided the first credible and sustained combat power in Saudi Arabia. Our MAGTFs arrived with the supplies, food, water and sustainability to fight and stay fighting.

These MAGTFs are capable of being tailored or task organized for a particular mission, whatever the scenario dictates. In Operation Desert Storm this flexibility was demonstrated by the provision of a mechanized force with significant armor and mobility assets for the land portion of the campaign, and a tailored, strategically mobile amphibious force poised to strike from the Gulf waters. When the Allied forces arrived in Kuwait City, they found that Iraq's military command had believed that an amphibious strike was probable and had oriented a significant portion of their defensive combat power to thwart such a maneuver. In fact, an elaborate 26′ by 40′ sand table was found which detailed the entire Iraqi defensive scheme and confirmed the strategic advantage of amphibious forces. The diversion of several Iraqi divisions along the coast materially contributed to the success of the land campaign.

Operation Desert Storm has also demonstrated the need to closely review the programmed end strength reductions that we have planned. The Marine Corps' Total Force was stretched by the massive deployment in the Persian Gulf. Eighty percent of the operational forces of the Marine Corps were deployed outside of the continental United States. By employing the Total Force, we were able to maintain all of our global commitments, our forward deployments, our contributions to the President's counternarcotics effort, and still were able to meet the demands of the crises in Somalia and Liberia. If we expect such regional conflicts and contingencies to exist in the new world order, continued end strength reductions beyond the current budget must be revisited in light of their adverse impact on the nation's ability to meet its commitments and defend our strategic interests when challenged by aggression.

DOCTRINE

The rapid and total destruction of Iraq's armed forces also serve to highlight and confirm the warfighting doctrine formally adopted by the Marine Corps with the publication of Fleet Marine Force Manual 1 in March of 1989. This doctrine, known as Maneuver Warfare is based on the precept that the opposition must be attacked from a position of advantage against a particular enemy vulnerability. Successful maneuver depends on the ability to identify and exploit these enemy weaknesses instead of relying upon mass or the expenditure of firepower. Maneuver relies upon speed, surprise and boldness to overcome the threat. Potential success through the employment of this approach is normally totally disproportionate to the effort made and the costs incurred in terms of casualties. The utility of such a doctrine is important for expeditionary forces which may be required to win quickly, with minimal casualties and limited external support against a larger foe.

The Marine Corps maneuver-oriented doctrine seeks to shatter the enemy's cohesion and psychological balance through a series of rapid and violent actions which present a cycle of decisions and deceptions. The enemy is presented with a number of apparent dilemmas which with it cannot cope and from which it cannot escape. It generates the greatest decisive effect at the least possible cost to ourselves.

Doctrine by itself does not win wars unless translated into being through realistic and imaginative training and education programs. our Marines must train realistically, they must train in an integrated combined arms environment with live fire, against opposing forces where artillery fire, attack helicopters, close air support aircraft are coordinated, where tanks, smoke, and chaos replicate the violence and confusion of the modern battlefield.

To reiterate, it is probably far too early to determine "what works" and what does not with any precision. It will require several months of interviews, debriefs, analysis and study before we can answer all the questions raised by the conflict in Southwest Asia. I would be very suspicious of any effort to rush a judgment on any particular weapon system or program at this point in time. We have initiated a major lessons learned study effort to collect, document, and archive all the information generated by the war in the Gulf. This will involve the most detailed on scene battle assessment ever undertaken by the Marine corps. This information will be added to the data already compiled for our research facility at Quantico, VA.

Still, it would not be premature to highlight some broad operational aspects that represent what we should not learn from operations Desert Shield and Desert Storm. The lesson not to walk away with is assuming that we may always have the relative amount of time, access, and lack of opposition we enjoyed in making our force deployment to the Persian Gulf. We cannot expect to have complete access to the seas and to friendly ports and airfields all the time. We cannot expect to have the luxury of prepared air facilities designed by our own engineers. We most likely will not have the luxury of several months to complete a force build up nor several months of unfettered live fire training for our troops. Finally, it should be noted that we received extraordinarily generous support from our Saudi hosts. Future force deployments should not count on such favorable circumstances.

Lastly, some cautious words about the limits of technology must be voiced. America has always relied on technology, and will continue to do so to provide a competitive and strategic advantage against those who oppose our vital interests. Technology was a dominant and decisive force multiplier in the fight against Iraq. The Marine corps seeks to apply technology whenever appropriate to provide our forces with the same comparative advantage. For example, we seek to provide our Marine expeditionary forces with a modern medium lift assault helicopter with the type of modernized avionics and night fighting capabilities needed to perform in the 21st century. We are also pursuing the Advanced Assault Amphibian (AAA), our primary research and development program at the present time. The AAA program will provide our forces with the tactical mobility and ballistic protection designed to match our bold and imaginative tactics. Such programs represent a very modest investment to maintain our existing expeditionary capabilities given the dynamic and uncertain period we are entering.

Still, technology is not a panacea. We do not foresee that conflicts in the future will be solved by the mass application of stealth or smart weapon technologies against Third World adversaries. In the gray and murky area of "violence peace" in the developing areas of the world, we envision a demand for quality forces that are superbly led by masters of the operational art, trained to a razor's edge for a wide range of missions, with sufficient means to arrive on the battlefield to fight and win.

Senator SASSER. Good. Thank you very much, General.

General GRAY. Thank you, Mr. Chairman.

Senator INOUYE. All of us, especially Members of Congress, are constantly reminded of our Government's critical stage in our budget deficit. We are constantly reminded about our Nation's economy, that we are in a recession. We are constantly reminded that our fiscal institutions, our banks, our savings and loans, insurance companies, are at a very dangerous stage, the rate of bankruptcies appearing to reach historic heights.

And then we have the Gramm-Rudman-Hollings law. When you put all of that together, all of us can understand why we have to cut down the costs of running this Government. I must commend all of you for exercising extraordinary restraint in not coming forth and requesting funds which you know deep in your heart you need to maintain the force necessary to carry out our missions. I can almost see you biting your lips and your tongues as you appear before us.

But I think that all of us may be doing ourselves and our Nation a great disservice by not telling the people of the United States what the costs will be, what the potential risk may be, for carrying out the decisions of this day. So I would like to, in that spirit, ask a few questions. You have been so restrained that you do not wish to tell us how bad the situation is. I am just going to take one area that concerns me, and there are hundreds of other areas.

MAINTENANCE BACKLOGS

In my discussions with the most responsible naval officials, men who are in a position to know tell me that maintenance backlogs greater than 100 for airframes, 250 for engines, and 2,500 for missiles will seriously impair the Navy's ability to meet plane training rates, the operations tempo, and other readiness requirements.

In fact, they point out that the backlog for airframes before 1980 never exceeded 100. Now, these are the maintenance backlog numbers that have been provided by the Navy. For fiscal year 1992, 269 for airframes. That is over 100. And 534 for engines. That is over 250. And 2,980 for missiles.

Projected for fiscal year 1994, the maintenance backlog for air airframes will be 757, for engines, 735, and for missiles, 9,632. I have before me an important document dated 4 weeks ago from your highest officials. It is a memo to the highest official. I am going to read verbatim:

> Since October 1990, a series of budget reduction decisions has severely impacted planned naval aviation depot maintenance. The end result degrades our ability to wage war and will affect our capability to sustain peacetime operations. The fiscal year 1992–93 budget yields worrisome numbers of bare firewalls, grounded aircraft, and insufficient ready-for-use ordnance missiles. The risk of building an increasingly hollow force is clear.

Mr. Secretary, what are your comments, sir?

Mr. GARRETT. Mr. Chairman, you will have to pardon me. I am not familiar with the document from which you are reading. We have, of course, and will continue to manage, as carefully as possible, the backlogs that may or may not grow to such numbers.

If I may, I would like to confirm these figures and get back to you for the record.

[The information follows:]

> The maintenance backlog numbers you have been provided are correct.

Mr. GARRETT. CNO, you might have something you wish to add to that.

Admiral KELSO. Mr. Chairman, I do not know exactly what the numbers are. I do know that as we go through this period of reduced spending we will see on a negative real growth. As far as you can see into the future we are going to have maintenance issues that come up. And they are going to have to be addressed on a year-by-year basis. Because if you project all the way out, you are going to have serious problems of bare firewalls, engine reworks, and that sort of thing.

As I said in my statement from the beginning, I think we have to look very carefully as we go down this path as to how far we are going to go. And that is what we are going to have to measure. Those are the sort of things you are talking about, maintenance backlogs and the like.

As the Secretary of Defense said in his testimony, we may have to come back up here in a year or two and tell you that we think we are going too far. This is where I think we are now; as we go down this path we are going to learn some of the effects it will have on us.

I do not know that if you project all the numbers into the outyears, that we are going to have serious problems. If we make corrections along the way, as we have many times in the past, maybe we will be all right. But we are just going to have to watch that as we go, sir.

Senator INOUYE. The 5-year plan that we have before us was conceived before we had any idea about Operation Desert Storm. Keeping that in mind, do you think the events of recent months would justify a reassessment of that 5-year plan?

Mr. Secretary?

Mr. GARRETT. Well, sir, we are, of course, always in the process of reassessing either one part or the other, or the entire whole as we meet and discuss these issues. My own conclusion as I have struggled with these issues now over the last 3 or 4 years, as we have dealt with an ever-decreasing top line, is, as you pointed out in your opening comments, we have many issues that we are addressing in the context of the defense budget. Not the least of these is the deficit, Gramm-Rudman-Hollings, and other issues that must be factored into the overall question of where the top line in defense will come to rest.

I have come to the conclusion that we are simply not going to escape the reality of a decreasing top line. And that is what we are trying to deal with.

Senator INOUYE. Commandant, it was not too long ago the Marine Corps had intended to purchase 470 M–1A1 tanks. Because of the problems that we are all aware of, you brought that number down to 215. As of this moment, I believe only 16 have been delivered to you. In Desert Storm, in order to beef up your heavy armor, you had to borrow 60 tanks from the Army and other logistical support.

I do not know if the people of the United States know that our troops had to serve in the old M60's. They are capable weapons, but against the T–72, that is another picture.

Are you going to be reassessing and reconsidering the M–1A1 numbers?

General GRAY. As you know, Senator, we looked at this very, very carefully throughout this entire process. As I stated earlier, the scheduled delivery of M–1A1 tanks for the Marine Corps is something that had been set by the Department of Defense, in concert with the Congress, for some period of time. We were not scheduled to get the M–1A1 tanks for delivery and introduction into the Marine tank battalions until the fall of 1991.

We were able to develop a plan which accelerated that fielding, allowing us to equip one of our tank battalions in Southwest Asia with the M–1A1 tank.

The M60–A1 tank, that we have and we use, was the tank that was on the maritime prepositioned ships and it is a good tank. People must, I think, agree with that because it has good maneuverability, good speed, and it has operated for us very well.

The plan was to replace these tanks with the M–1A1, 120 mm cannon upgraded ammo version, consistent with the recycle of our maritime prepositioned forces. Again, we accelerated that fielding effort.

The M60–A1 fought very well in Saudi Arabia. Your Commandant is clearly aware of the advantages and disadvantages of its capabilities. We knew that we would have no problems with anything short of the T–72 tank. We knew that we could handle the T–72 with our other armor/antiarmor capability, and probably handle the export model of the T–72 with the M–60 as well. This prediction that the M–60 could handle the T–72 turned out to be the case.

We killed approximately 59 T–72 tanks with our M60–A1's through maneuver and through flanking shots. The fielding of the M–1A1 has been a concern. We took what we had and made the very best use of it that we could.

The 215-tank procurement plan is based on the need to draw down, somewhat, in our armored capability in the Corps. That is, our tank capability. We plan to go down to two battalions of active duty armor and one battalion in our Select Marine Corps Reserve. This is a result of the budget allocation.

I would also submit that in the future, as part of our integrated strategy, when we need more armor than this, then the Army should provide it, as they should provide heavy artillery. That is what joint operations and force sequencing are really supposed to be all about.

So the answer is that we planned to stay at that number. Three tank battalions in the total force, and enough tanks to equip our maritime prepositioned forces with the new M–1A1 tank.

MEDIUM LIFT

Senator INOUYE. Commandant, I have another question. All of us, we are impressed with your opening statement, especially when you related to us the heroic 450-mile helicopter flight to rescue Americans in Somalia. My question is, Would the V–22 have done a better job in that operation?

General GRAY. It is always difficult to speculate on capabilities, with respect to what is on hand, what is on the drawing board, and what future capability you need. Fundamentally, we do not bring anything into the Navy or Marine Corps inventory unless it gives us a significant combat or an operational advantage. Clearly, tilt-rotor technology would provide this advantage.

Our requirement is to replace our medium-lift helicopter, the CH–46E. After careful study for many years, the Marine Corps supported the joint program to adopt tilt-rotor technology. Over a period of time, some of the other services abandoned the program. It still remains a requirement in the Marine Corps and in the Air Force for special operations.

We are now reaching the point where we must replace the CH–46E. Every day that goes by, we get further away from having a vertical assault capability for the landing force and for operations ashore. We are, in your Commandant's view, in the year of decision. We must decide whether the CH–46E is replaced by helicopter technology or advanced tilt-rotor technology.

With respect to the helicopter technology, we are at the upper technological limit of what we can do with helicopters. We can build a bigger engine and get a little more speed, a little more thrust, and a little more lift. But, fundamentally, we are at the outer edge of the technology envelope.

We simply must ensure that our helicopters have the avionics and defensive countermeasure systems they need to survive.

However, the high cost of aircraft is in your avionics packages and associated defensive systems. So one has to look at what the overall costs are to replace the CH–46E with helicopter technology. It would be criminal to ask your warriors to go ashore, or anywhere else in the world, with second-class helicopters.

Tilt-rotor would make a difference because you can go farther, carry more, and do it quicker. Tilt-rotor is part of our operational concept so that we can come from over the horizon and avoid precision-guided munitions. Certainly, if you had that capability in your Marine Corps today, you would have given your commanders a different option for Somalia, and you would have given them different options to overcome the mine threat in the northern part of the Persian Gulf.

Senator INOUYE. Well, obviously, if we had the money and could afford it, I suppose we would be buying them.

General GRAY. The concept is sound, and it is my understanding that the concept has not been the question with the Secretary of Defense. As I have said publicly, in the last few years, it is a great concept. It is a tremendous idea. It is also a bad time to have a new program start.

Mr. GARRETT. I would second that, Mr. Chairman. I don't think the Secretary of Defense or I ever questioned the concept. We believe it is a good concept. When the decision was made to step away from the V–22 program, it was at a time when we were contemplating for fiscal year 1992, a Department of the Navy budget of $107 billion. And the decision was then premised, as you know and as the Secretary testified, upon the issue of affordability. It was a hell of a time to have a new program start. Well, at this juncture, we are looking at a fiscal year 1992 budget much, much below that. Instead of $107 billion, we are looking at a $91 billion budget, and the issue of affordability, of course, becomes even more stark.

INDUSTRIAL BASE CONCERNS

Senator INOUYE. In our discussions with the Secretary of the Air Force we spent some time looking into the matter of industrial base. It is a matter of grave concern to the Air Force, and I am certain it is a grave concern to the Navy. In this past decade, the decade of the 1980's, Tacoma Boat, Penn Ship, Todd Seattle, and Todd Los Angeles have gone into bankruptcy. Today Bethlehem Steel, Tampa, and many others are fighting for their industrial lives.

There is a possibility or potential that if the Navy is successful in implementing a two-source SSN–21 strategy, Electric Boat may join this sad group. What is the future of our industrial, Mr. Secretary?

Mr. GARRETT. That is very difficult to answer. It is obviously not a rosy outlook, Mr. Chairman. I have watched it now since I became the Under Secretary in 1987. A number of the shipyards have declared bankruptcy over the last 4 years. We have testified before that, unfortunately, as it relates to the industrial base, the Navy is essentially the only game in town. We are the only one who is buying ships to support this industry.

The last commercial vessel built and delivered was in November 1987. There is, to my knowledge, one commercial vessel now being built in a yard on the west coast. And that is the only commercial ship to be built since the last ship delivered in November 1987. Our budgets obviously continue to go down. Our SCN account continues to get smaller. We are clearly going to be building fewer and fewer ships if we continue on this downward ramp without some leveling out at some point in time.

So, in that context, I can only conclude that we are faced with a very, very difficult problem, both from the point of view of providing for the national security, as well as maintaining our industrial base, which was the comment I made in my opening statement.

Senator INOUYE. Would you change your adjective from difficult to dangerous?

Mr. GARRETT. Well, sir, when you get to the point where you have one shipyard building new ships on the west coast of the United States while simultaneously a number of our shipyards on the east coast, as you point out, are facing very difficult times, we certainly stand the possibility of losing a significant amount of our industrial base as that skilled labor force goes away.

Senator INOUYE. Senator Specter.

Senator SPECTER. Thank you, Mr. Chairman.

Mr. Chairman, I would ask unanimous consent that Secretary Garrett's letter to the New York Times, dated September 24, 1990, published on October 1, 1990, be included in the record, where the Secretary says that 14 carriers are not an extravagance, but are needed.

Senator INOUYE. Without objection, so ordered.

[The information follows:]

[From the New York Times, Oct. 1, 1990.]

DON'T CALL 14 CARRIERS AN EXTRAVAGANCE

WASHINGTON, *September 24, 1990.*

TO THE EDITOR: In "Is the Peace Dividend Being Engulfed?" (editorial, Sept. 19), you do readers a disservice with the suggestion that if only four United States aircraft carriers were sent to meet the Persian Gulf crisis, the other 10 must be "an extravagance." You imply that carriers are like snow shovels—you need only one, and then only when it snows.

The President's ability to maintain a responsive and sustained carrier presence in potential trouble spots around the world depends on having a fleet that can support a continuous cycle of maintenance, training and deployment.

At any one time, roughly one-third of the Navy's carriers are fully combat-ready and forward deployed. Another third are in a standdown and maintenance period that follows each deployment. The remainder are training a new team of personnel and exercising hardware—in port and at sea—in preparation for the next six-month deployment.

In a crisis, that cycle can be compressed; but, in the long term, alternatives to a three-cycle simply do not work. To keep the carriers at home until a crisis breaks out is to undermine their ability to be on station, ready to project force within hours of a call from the White House. To keep the carriers continuously at sea for longer periods is to impose an intolerable and debilitating burden of fatigue on men and materiel.

The national interest and treaty obligations of the United States still require deployment of aircraft carriers in numerous key parts of the world. Until that changes (and it doesn't seem likely to very soon) 14 carriers are anything but "an extravagance."

H. LAWRENCE GARRETT 3D,
Secretary of the Navy.

Senator SPECTER. Mr. Secretary, when my first round was interrupted, I was just coming to the point of comparisons on the utility of a carrier, as opposed to others in the strategic arsenal. And I realize that this involves an evaluation of Navy versus Air Force, but the Congress is going to have to make some of those judgments.

The B–2 has been under a tremendous amount of fire in terms of its performance, whether we ought to buy it at any cost. Last year the Appropriations Committee approved the B–2 by a vote of 15 to 14, and it survived on a floor vote in the Senate by a very narrow margin. On each occasion I supported the B–2. I think I was the last person to vote on the Senate floor on the matter because of the closeness of the issue.

The B–2 costs approximately $800 million a copy. We now have the conclusion of reduced threat from the Soviet Union, although no one knows for sure precisely where we are going to be with the developments in the Soviet Union. I would be interested in your evaluation of the relative merits of spending $850 million for a service life extension for a carrier, contrasted with $800 million for a B–2 bomber.

Mr. GARRETT. Well, sir, if I may. The B–2 bomber is not an issue that is within my jurisdiction. It is not one that I discuss or follow that closely since it is an issue that is really, I think, one that falls into the strategic equation and the continued modernization of our strategic forces. The issue of carrier SLEP's, obviously, that too is not an inexpensive proposition. I have looked at those issues in the context of the overall Navy budget and where our carrier force levels are going. As we discussed 1½ years ago, we had the SLEP program on line and planned to go through another two carriers, the *Kennedy* and the *America*. But that was before the decision was made to draw down on the size of the carrier force. The question then became whether or not we would continue to invest those kinds of dollars—again, in the context of the overall balance of naval forces—or whether we would step back from the SLEP and go for the complex overhaul, which, as you know, is less expensive. Again, in an attempt to husband our resources and derive what we considered to be the greatest benefit from ever-decreasing dollars, the decision was made to convert from SLEP to a complex overhaul for those last two carriers.

Senator SPECTER. Well, I thank you for your answer, Mr. Secretary. It is an answer to the question: How do you allocate Navy dollars? It is not an answer to the question: How do you compare an extra carrier? Which is the product of a comparison of SLEP with a B–2 bomber. And I can understand your reasons for not wanting to confront that question directly. But that is a question which the Congress has to evaluate.

Mr. GARRETT. The view that I have in that context, Senator, as we have always argued—and I would not argue it if I did not firmly believe it—is that you get a great deal in the national security equation from forward presence in the context of our carrier battle groups. As the Secretary of Defense alluded, when the balloon goes up the President asks: "Where are the carriers? Where is the nearest carrier?" And that, of course, happened in August.

You get a great deal of return, in my view, from having the ability to place around the world this kind of potential firepower in the context of the deterrent equation. And, of course, if you are unsuccessful in deterring whatever activity is contemplated by those in the world who would challenge us, then the utility is there. I mean, our carrier decks represent a great deal of capability. And that is the value of the carrier, it's mobile, flexible, packs a powerful punch, and can maintain presence over a long period of time without anyone's permission.

Senator SPECTER. I thank you for that endorsement for the carrier, even though it is not a comparison to the B–2.

Well, let me turn for a moment to the Philadelphia Navy Yard. And this is a large subject and I will submit a number of questions for the record, if I may, Mr. Chairman, both on the Navy Yard and on other subjects, because there simply is not time enough to cover all the matters that need to be covered.

On the Navy Yard, let me encompass a good bit of material into one question.

Mr. GARRETT. Yes, sir.

PHILADELPHIA NAVY YARD

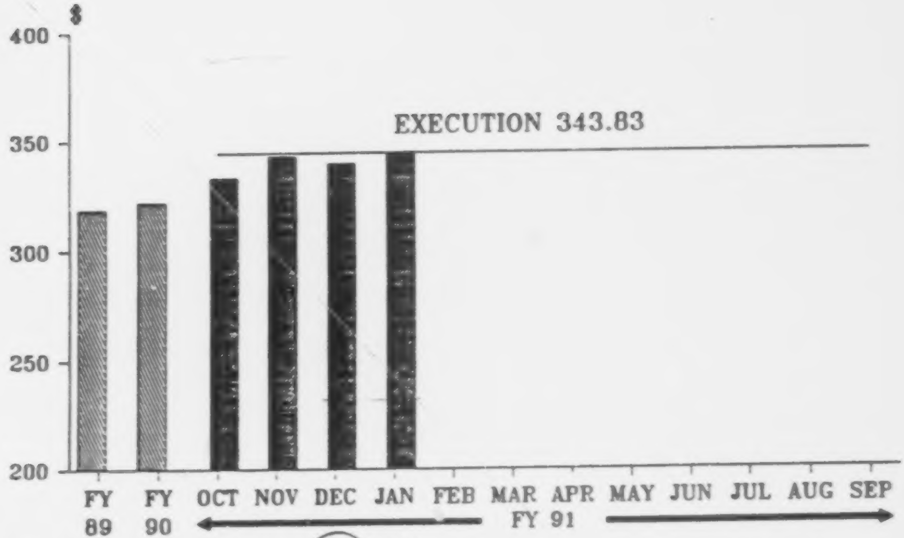
Senator SPECTER. The Philadelphia Navy Yard operates in a way where it does not cost the U.S. Government any money. The Navy Yard pays for itself out of contracts for Navy repair work. So that its personnel and its maintenance are paid for as it contracts with work which is done. The Philadelphia Navy Yard can perform a Service Life Extension Program at a cost of about $800 million to $850 million, which extends the service life of a carrier in the range of 15 to 20 years, contrasted with the cost of a nuclear carrier at $4 billion in current dollars and projected to be substantially higher than that in the future, where we obtain a carrier which is good for about 30 years.

The man-day costs of the Philadelphia Navy Yard are much lower than any of the other eight Navy yards. And at this point, Mr. Chairman, I would like to have placed in the record a comparison of these costs which I obtained from Captain Clark at the Navy Yard yesterday.

Senator INOUYE. Without objection, so ordered.

[The information follows:]

REPAIR/SLEP MANDAY RATE
FY91



	FY 89	FY 90	OCT	NOV	DEC	JAN
PHILA	318.51	321.62	332.52	342.24	338.85	343.05
PORTS	352.22	372.87			450.07	
NORVA	357.01	386.59			417.12	
CHASN	347.06	340.46			389.69	
PUGET	371.19	387.46			405.97	
MARE	431.84	460.79			512.73	
L. B.	349.66	379.04			461.16	
PEARL	439.94	532.78			—	

Senator SPECTER. I believe they are current, and I represent that they are accurate, but I represent my source to be Captain Clark of the Philadelphia Navy Yard.

This document shows that the closet competitor to the Philadelphia Navy Yard is the Charleston Navy Yard, where a man-day costs $389.59, contrasted to the Philadelphia Navy Yard of $338.85. So that the nearest competitor to the Philadelphia Navy Yard is $50.74 more expensive per man-day.

At the other end of the chart is Mare Island, which costs $512.73. So that in comparing the Philadelphia Navy Yard and Mare Island, the Philadelphia Navy Yard is cheaper by $173.88.

Now, with those factors available, let me throw in two more. It is my understanding that whatever happens to the navy yard, there is a conclusion to keep the propeller shop and foundry in existence, and the drydocks will be maintained in caretaker status because the Philadelphia Navy Yard has two of the five drydocks available, one being at Norfolk, and two in Newport News, at least on the east coast.

And this is a question which I would like you to address in the aggregate because of the difficulty of undertaking all of these items separately, although we can do that if anything that has been represented here by me, based on representations which have been made to me—I do not have firsthand knowledge of any of these facts.

Mr. GARRETT. Yes, sir.

Senator SPECTER. I operate on what has been presented to me, but it has been represented to me that all of these facts are true. Let me put the question in its simplest form. How could the Navy even consider closing the Philadelphia Navy Yard?

Mr. GARRETT. Well, sir, I think it is again in the context, at least from my vantage point, of maintaining some balance between force structure, between people, between warfighting capability, and between the force structure and infrastructure. We have a fairly large infrastructure in the Department of the Navy, one that in the past has supported a much larger force structure than we now have. Essentially, that is the genesis of the consideration that you have read about concerning the closing of bases or shipyards or facilities that exist within the Department of the Navy.

Again, in maintaining that balance between infrastructure and force structure, it makes no sense to me to have a large infrastructure when force structure continues to get smaller and smaller. Every dollar spent on infrastructure is a dollar that cannot be spent on force structure.

Senator SPECTER. Well, you are not saying that the navy yard is going to be closed and neither am I.

Mr. GARRETT. No, sir; I am not.

Senator SPECTER. So it is important to specify that. But, on a comparative basis, if you are going to close some yard, how can it be the Philadelphia Navy Yard?

Mr. GARRETT. Well, sir, as you point out, that issue is not resolved. It has been one that has been debated, and will, I am sure, continue to be debated at length as the Base Closure Commission comes together in April.

We have not yet provided our list of proposed closures to the Secretary of Defense, who will, of course, then make a decision as to what is provided to the Base Closure Commission. But, again, it was an issue that we looked at early on in 1989, and have been looking at ever since.

One of the factors the CNO may wish to address, is the issue of the propeller facility. It is one that we consider to be—certainly I consider to be—an important facility, as are the drydocks. But, we presently have eight naval shipyards, six of which are capable of performing repairs on nuclear vessels, and two of which are not. That is, in my view, a factor which must be considered.

We will never, having closed a nuclear-capable shipyard, in my opinion, certainly not in my lifetime, reopen or restart another one. The circumstances under which we initiated that evolution years and years ago have changed dramatically and I think, given the environmental concerns, it would be difficult, if not impossible, to start another nuclear yard. That is just one factor that goes into the many questions and the many considerations that will be looked at as we put our proposed list together for Secretary Cheney.

Senator SPECTER. Mr. Chairman, my 10 minutes are up. I yield back to the chairman for the next round, but I do have some further questions.

Senator INOUYE. OK.

Senator SPECTER. Thank you, Mr. Chairman.

Mr. Secretary, when you say it is going to be impossible to start another nuclear yard, it seems to me that that puts those yards on an unfair footing with the nonnuclears. Because it may be impossible or extremely difficult just to open any kind of a navy yard.

Mr. GARRETT. Yes, sir.

Senator SPECTER. So it would be my hope that that factor would not be a conclusive factor in favor of the nuclear yards, to the detriment of the nonnuclear yards.

Mr. GARRETT. Well, I meant to say, Senator, that this is one factor we considered early on. That was well over a year ago. We looked out into the future, without any concrete idea at that juncture what the size of the Navy would be.

As it has turned out, the worst-case scenario that we were reviewing in the November/December 1987 timeframe was very, very optimistic. We are in a far worse situation today as it relates to the size of the Navy in 1997 than we were when we looked at that in 1987. And again, I firmly believe that it is essential that we balance our infrastructure capability with our force structure.

Senator SPECTER. Mr. Secretary, let me approach the navy yard directly on just one more question.

Mr. GARRETT. Certainly, sir.

Senator SPECTER. Considering the fact that the yard is not funded directly by the defense budget, that is, personnel payroll and building maintenance and operating expenses are paid by the selling of the shipyard's services.

Mr. GARRETT. Yes, sir.

Senator SPECTER. And the fact that it would cost at least $100 million to close the Philadelphia Navy Yard. What reason is there to even consider closing it?

Mr. GARRETT. Well, again, it is as I have tried to explain, Senator. Maybe I am not very articulate in my attempts. It is the fact that we have capacity that we are not going to be able to use in future years if, in fact, the fleet continues to decrease in size at the rate that it is now. As you know, we are taking out 73 active naval ships in 1992. We are taking out 33 in 1993.

And again, we are looking across the entire universe of capabilities. The fact that the shipyard operates out of the "Navy industrial fund" account is true of all eight shipyards. They are all, at least as it relates to that issue, on equal footing.

Senator SPECTER. Mr. Garrett, Admiral Kelso, permit me to ask you my final question on this subject, and pick up on a question which Chairman Inouye has asked about the industrial base. And I refer to the testimony at the start of the hearing with Admiral Trost from last year, where he said on page 362 of the transcript for the hearings:

> Having said that we need the industrial base in this country to maintain our naval superiority, we do not want to see the demise of any of the facilities which support that capability.

I am advised that there has been considered in the Department of the Navy a proposal which would phase down all of the eight bases, so that all would be retained to maintain the industrial base. It would call for the reduction, as I understand the possible scenario, Puget Sound from 12,500 employees to 9,500; Norfolk 11,000 to 8,500. And these are all approximate number. Pearl from

6,000 to 4,000 to 4,500; Long Beach would stay about the same; Charleston would go from 6,500 to about 5,500; Mare Island would go from 7,000 to about 5,500; and Portsmouth would go from about 6,500 to 5,500. Philadelphia would be phased down as well.

I would like to ask you, or do ask you, for your thinking as to that as an alternative, which would retain the industrial base.

Admiral KELSO. Well, I certainly share your worry about the industrial base. And there are obviously various ways to go about doing it. I am sorry I have not read the particular study you refer to, but obviously you could choose to reduce the workload required by a reduction in fleet levels by, I guess, depending on what the work is, reducing all shipyard funding somewhat.

I think the argument has been, Senator, on the other side of the coin, that the capital costs to continue to operate more facilities are more expensive than the capital costs to operate fewer facilities. And I guess that is really one of the points that is going to have to be decided in making this choice as to the best way to do it. I would assume that was one of the wisdoms of the Congress in setting up the Base Closure Commission.

But I think the issue is that some would believe you can do the work even cheaper. And as the Secretary says, we are in a position where we are downsizing in budget and numbers. We have to look for efficiencies while doing that. And while some would argue that it is more efficient to downsize with fewer facilities, I think there could be a counter argument to that.

Senator SPECTER. I would like to ask for the record the question which I discussed briefly with Secretary Garrett in advance of the hearings, and that is a GAO report dated January 1991 which makes a representation that:

> The Army and the Air Force selected candidate bases on the basis of various internal assessments and studies conducted during 1989 in response to a variety of factors.

And it contrasts this with the Navy's alleged selection of its candidate bases on the basis of suggestions made by knowledgeable naval officials that worked directly for and within the Office of the Secretary of the Navy.

And last year, Deputy Secretary Atwood testified that the Secretary of the Navy went through the analysis of what their requirements were in the years ahead. And just to boil it down—I think that is an important point, and I wanted to raise it in the public hearing. But I ask the specifics as to the Navy's analysis on the bases, contrasted with the procedures used by the other branches of the service.

[The information follows:]

We do not disagree with the characterization by GAO of the process used by the Navy in its January 1990 selection of candidate bases. It was understood that the January 1990 candidate bases would subsequently be subjected to further detailed study and evaluation before any final decisions were made. Therefore, no formal studies were conducted in advance of their nomination by the Secretary of Defense on 29 January 1990.

Mr. GARRETT. May I clarify, Senator Specter?

I am not familiar with the GAO report. Are they referring to the proposed list that came out about January 1990?

Senator SPECTER. I do not think they are.

Mr. GARRETT. The list that existed heretofore? Because we have not yet put together a list for the upcoming Base Closure Commission. So I conclude that it must be the list that was made public around January 1990. I just wanted to make sure that I understood.

Senator SPECTER. Well, let me make available my copy to you.

Mr. GARRETT. All right, sir.

Senator SPECTER. And they do refer here, as I have said, to the 1989 timeframe.

Mr. GARRETT. OK.

Senator SPECTER. And the concern that I do have is that if you have made some closure conclusions in the past, they could weigh rather heavily on the present when it is so close.

Mr. GARRETT. Yes, sir.

V–22

Senator SPECTER. Mr. Chairman, I have just a couple of questions on the V–22 if I might proceed. I will conclude within the next few minutes, Mr. Chairman.

General Gray, I know your views on the V–22, and we do not need to go back over the old ground, but I would like to get your evaluation as to what the V–22 might have done in the gulf operations. I have a report that there were at least two successful rescues, and I concluded they were successful, which might have been much quicker and easier with the speed, range, and inherent survivability of the V–22. I cite an article from the Armed Forces Journal International which said:

> Some military officers suggest (referring to the V–22) it is one piece of military equipment which the U.S. Central Command wishes most it had in the gulf today.

And my question is, What would have been the unique advantage of having the V–22 in the experience we have just sustained in the gulf war?

General GRAY. We are speculating here because we do not have the V–22. When you have something and it is integrated into your doctrine and operational concepts, then quite often a number of other capabilities spin off from it. Fundamentally, the MV–22 would offer a much better aggregate usefulness for search and rescue, both ashore and afloat. It would also offer you considerably more flexibility in a number of different operational situations. We can certainly expand on that for the record, sir.

Senator SPECTER. Well, if you would for the record, I would appreciate it.

[The information follows:]

One important advantage of having the V–22 would have been its ability to self-deploy. That capability would have freed dozens of strategic lift sorties which could have been dedicated to support other high priority movements. The V–22 would have arrived ready for combat operations. Our CH–46s that were not embarked aboard amphibious shipping had to be partially dismantled for shipment, embarked aboard strategic lift aircraft, disembarked at the destination, reassembled, and then prepared for operations.

Two other advantages of the V–22 would have been its increased speed and combat radius. We have discussed these advantages several times in testimony, and I don't think I have to go into great detail on that. But if an amphibious landing had been necessary, a V–22 force could have avoided a direct attack on enemy defenses because the V–22 force would have had the range to fly to the enemy's vulnerable flanks and rear.

I should also point out that the advantage in range goes beyond the obvious element of distance required to execute a particular mission. Our helicopter operations ashore required us to establish a number of Forward Arming and Refueling Points (FARPs) in order for us to have our helicopters near the ground forces. The FARPs require a large number of personnel and a great deal of transportation and support to maintain the logistics tail. The V–22 would have greatly reduced the size and number of those FARPs and still would have maintained the responsiveness required by the ground forces.

The designed-in survivability and crashworthiness of the V–22 is unsurpassed by any of the helicopters we employed in Operation Desert Storm. Because of the way the war was prosecuted, survivability and crashworthiness were not as critical a factor as they have been in other conflicts. Simply put, our plans had to consider the limitations and vulnerabilities of our helicopters. If we had the V–22, our tactics may have been considerably different.

Finally, I think Operation Desert Storm has clearly validated our philosophy that we must be prepared to fight at night and in adverse weather conditions. None of our helicopters had the requisite navigation or integrated night systems for that environment. Through innovative training and emergency procurement of some items of equipment, we were able to implement some stop-gap measures. The V–22 has the required subsystems fully integrated into a combat system that would have provided reduced pilot workload, increased safety margins, and enhanced the probability of mission success.

There are a number of other advantages that could discuss, but I think these few make the point that the V–22 would have offered increased mission effectiveness and would have greatly enhanced our flexibility during mission planning as well as during the execution phase.

Senator SPECTER. And I ask one more question to be supplied for the record, and it is an involved question. It relates to the deferrals by the Department of Defense in a context where the Appropriations Committee, through the chairman, Senator Byrd, and the ranking member, Senator Hatfield, have had extensive correspondence with the Office of Management and Budget. And there has been an opinion expressed by the Comptroller General of the United States on illegality of deferrals.

The issue arises in the context of many programs, but it is a sharp statement as to the V–22. And this is a question which you may want to refer to your lawyers. I have studied it at some length and believe that the conclusion reached by Senate staff and the Comptroller General of the United States is accurate, that the deferrals are illegal.

I would like to make available these documents to you and ask you for a formal response for the record.

Mr. GARRETT. I would be happy to respond for the record, sir.

[The information follows:]

Deferrals under the Impoundment Control Act, are permissible only for the purposes set forth in the Act. The Comptroller General is correct in his conclusion that a deferral of a Program purely on policy reasons is unauthorized.

In the case of the V–22, the Comptroller General reached a conclusion based on public statements of officials rather than on the specific facts that supported the decision not to obligate the funds. The Comptroller General notes in his decision that it is necessary to distinguish between programmatic decisions outside the purview of the Impoundment Control Act and deferrals that would fall within the Act. What the Comptroller General did to reach his conclusion that the V–22 withholding was not pragmatic was substitute his technical assessment for the judgement of the officials responsible for making that judgement. The V–22 needed additional research and development to produce an aircraft that could proceed to OPEVAL. A decision to proceed concurrently with production was not prudent based on the technical assessment.

Submitting a transfer provision as part of the President's budget was the most effective means to transfer the funds to the appropriation that was available to continue the development effect. Withholding of funds until they can be reprogrammed or transferred to the correct appropriation is a long standing practice and falls beyond the purview of the Impoundment Control Act.

Senator SPECTER. Mr. Chairman, I thank you for your indulgence. This Senator would not mind if there were not quite so many topics of vital concern for my constituents, but I have tried to abbreviate them and will have quite a few more questions for the record. I also say this is only a small part of what is of concern to my own State.

Thank you very much, Mr. Chairman.

Thank you very much, Admiral, Mr. Secretary, and General.

Mr. GARRETT. Thank you.

Senator INOUYE. Thank you, Senator.

I believe what Senator Specter has brought to this committee draws a dramatic picture of what is happening in the United States. In every village, every township, every city, and every community, we hear voices of cutting down defense. It is a very popular subject. You see it in editorial pages and op ed pieces. But all too often we do not see the full dimension of what is now being proposed.

Oftentimes, in these editorials and statements there is a footnote, but not in my backyard.

Last Saturday I was in Oklahoma City on a matter relating to another committee. While there I happened to turn on the television set, and there was this scene of great joy and jubilation. Men and women were returning to Tinker Air Force Base from Desert Storm. Women rushing up, kissing their husbands. It was just pandemonium of joy. Then immediately after that there was a report that 900 employees at Tinker had just received their yellow slips, reduction-in-force slips.

Simultaneously, at the same time on the same day, I hope that the people of the United States realize that what happened in Tinker Air Force Base is going to be happening all over the United States. If we are going to cut down defense, there are matters that we have not discussed on this subcommittee because it is not in our jurisdiction, but somebody is going to pick up the tab for unemployment compensation. Somebody is going to pick up the tab for welfare. Somebody is going to pick up the tab for crime.

There is always a correlation with unemployment and crime. There are many costs involved that we have not discussed nationally or in committees. So I hope that the people of the United States understand when these questions are asked. They may be criticized as being parochial, but these numbers represent people.

Mr. GARRETT. Yes, sir.

Senator INOUYE. I am certain all of you are aware of that.

I have before me many, many questions, that I will be submitting for the record. I have been asked by every member of the subcommittee who has come by but was not able to ask the questions to submit their questions for your concern and response.

I would like to end my questioning with a happy note to you if I may. We have been asking all these sad questions.

Admiral, in your statement you referred to a decline of almost 30 percent in the number of personnel who have died in operational accidents between fiscal year 1989 and 1990. Also the lowest aviation accident rate in history.

These are extraordinary and happy statistics. What is the secret to your success?

Admiral KELSO. I think it is the secret of our young people, not mine so much, Senator. They are carrying out their daily duties the same way they have done in Desert Shield and Desert Storm. Hopefully, the improvement in training and that sort of thing is what is making it take place.

It is clear that in some areas, we had the best safety record in naval aviation last year that we had ever seen. I think it is the extraordinary motivation and good training throughout the organization from our middle-level leadership up and down that is paying attention to what makes safety happen out there. I am sure that is what is making it take place.

Mr. GARRETT. May I add to that?

Senator INOUYE. Yes, sir.

Mr. GARRETT. Certainly I share the CNO's views. But I would also like to stress that it is in no small part or no small measure, Mr. Chairman, a result of training, which equates to flying hours and the dollars needed to adequately fund them. It is also an issue of properly maintaining our equipment. And that all equates to O&M funding. It all has its costs, as you point out so eloquently, in the other context.

So that is why we believe very strongly that, as we go through this downsizing, it is very important that we continue to provide the necessary dollars to constantly train our marines, our sailors, and our airmen. Because when they go to sea, if they are not prepared to do what the President or the national command authority may call upon them to do, then we have not done our job.

Senator INOUYE. As you pointed out, if we are required to cut down O&M costs, accident rates may go up. If we are required to cut down personnel costs, the morale of the troops may come down. Then you will have problems in recruiting.

Mr. GARRETT. It is a very delicate balance, especially as it relates to those who go to sea in ships—a very delicate balance.

Senator INOUYE. Well, I would like to point out to you, as I have to all of the secretaries and the commanders, that this committee stands ready to work with you because we know that these are extraordinary, and the decisions we make will have an impact 10 years down the line.

Mr. GARRETT. Yes, sir.

Senator INOUYE. So we want to make certain that the decisions we make are the correct ones.

Senator Bumpers.

Senator BUMPERS. Thank you, Mr. Chairman.

Gentlemen, let me just say first of all, I did not hear Senator Hollings allude to the U.S.S. *Cowpens*, but there is an additional fact on that, and that is that it is commanded by a black man from the State of Arkansas. And you would be amazed at how much publicity you got on the commissioning of that ship in my home State. But I congratulate you on that. He is a remarkable, remarkable man. A very able guy.

Incidentally, how many black commanders of ships do we have?

Mr. GARRETT. I cannot give you the number off the top of my head. But we are increasing those numbers over time, Senator, as well as the number of women who are ascending to command, not only Navy ships, but naval stations.

MARINE CORPS STRUCTURE

Senator BUMPERS. General Gray, what is the present effect going to be, or the future effect going to be on manpower in the Marine Corps under all of these reductions? Are you going to be left with your roughly 189,000 men and women or not?

General GRAY. No, sir; the plan over the 6-year period is to reduce the Marine Corps considerably below the 189,000 end-strength figure. A total of 189,000 is about the size of the Marine Corps you need to man the force structure that we have, to include the three Marine expeditionary forces, the air-ground teams in the Far East and on each coast, as well as the one in the Reserves that is called for by law. The average strength, as the Senator knows, since the law was passed in the early 1950's, has been about 195,600.

The 190,000 has always been a figure that we could pretty well cope with and still have adequate manning of our forces, both Active and Reserve. If you took the Korean war increase out of those statistics, as well as the Vietnam war statistics, then you would see a figure of about 182,713. Your Commandant has said that it is in the 182,000 ballpark where we have to stay to give you the kind of Corps that the Nation has come to expect and needs.

The plan, over time, takes the Marine Corps below that in the outyears. It takes us down to a figure of 159,000. This figure, I believe, is not enough end strength to provide the Corps the capability that is mandated by law.

Senator BUMPERS. Well, General Gray, I want to tell you that I am really concerned about that. Of course I am concerned about these manpower reductions. I know, as you know, we on this side of the table have an additional concern, which is how are we going to get the money. But I am greatly concerned about the reduction of force in the Marine Corps.

What is the present size of the Marine Reserves and how will they be affected on the manpower reductions?

General GRAY. The Selected Marine Corps Reserve is just under 44,000 marines versus 193,735 active duty. The end-strength plan in the budget submission calls for 159,100 Active and 34,900 Selected Marine Corps Reserves. So it is a reduction of both Active and Reserve forces.

Where your Commandant remains concerned, is when you go below the 180,000 mark in active forces and go below about 40,000 or the high 30,000's in the Selected Marine Corps Reserve. When you do this, you begin to exponentially fracture your Corps' aggregate capability to provide the forward-presence readiness and expeditionary capability that we need. I am also very concerned that at this lower figure, investment funding, operation and maintenance funding, and modest procurement and modernization funding is not sufficient to even support that end strength.

I simply believe that somehow, someway, we need to weight the force structure a bit more to the Department of the Navy. That has not happened for a lot of pretty easy to understand reasons. It is just the situation that we are in. We have been cutting muscle since I have been privileged to be your Commandant. We have already cut three infantry battalions a few years ago. There is no fat here. We have, by far, the best officer/enlisted ratio. We have, by far, the lowest overhead. There is nowhere else to go. So you will continue to cut combat muscle, air and ground combat muscle, as we go down. And again, I have said that when you go below that 180,000 figure, you begin to go beyond what we can properly do for the Nation.

Senator BUMPERS. General, last year, General Pitman said that he had a serious shortage of the Hydra 70 rockets. And I also understand that he suggested the shortage was like about 200,000. I have also heard that we fired 400,000 in Desert Storm. But there is no request in the supplemental for this rocket. Are we getting short on it? Do we not want it any more, or what?

General GRAY. I will have to get back to you on that. I am not current on those figures.

Senator BUMPERS. OK.

General GRAY. We will have to go back and look at that.

Senator BUMPERS. Let me submit a question in writing to you on that, and explain a little production problem that we have at the plant that produces.

General GRAY. Surely, sir.

[The information follows:]

For clarification purposes, the Hydra 70 rocket system is unique to the Army and not compatible with shipboard use due to Hazards of Explosive Radiation to Ordnance (HERO) susceptibility. The MK66, Mod 2, rocket motor is used by the Navy, Marine Corps and Air Force, and is approved for use aboard ships.

The shortfalls identified by Lieutenant General Pitman have been partially overcome. We anticipate no backlog by the end of FY 1992. Initial reports of Marine corps combat expenditures of 2.75 inch rockets show a total USMC expenditure of approximately 2500 rockets.

The decision not to include 2.75 inch rockets in the FY 1991 operation Desert Storm supplemental request was based on the current production backlog and the fact that increasing the production requirements would only exacerbate the backlog and jeopardize future rocket motor funding in the out-years. The current backlog is a direct result of an explosive mishap at the propellant manufacturer in March 1988 and the bankruptcy of the sole producer of the rocket ignition unit, which stopped production from May 1990 to November 1990. Our Program Managers/Coordinators have and are working with industry to overcome the shortfalls. Further, the Department of the Navy (DoN) anticipates fielding the Advanced Rocket System (ARS) during late FY 1996 or early FY 1997, which will facilitate future rocket motor production rates.

The Marine Corps requirement for 2.75 inch rockets is valid. The 2.75 inch rockets provide our attack helicopters with their primary Close-In-Fire Support (CIFS) capability. The rockets are also used by our fixed-wing aircraft for Close Air Support (CAS) and for marking targets for attack by other aircraft.

Senator BUMPERS. Just two fairly quick questions. Mr. Secretary, what percentage of the men in Desert Storm/Desert Shield were transported by ship and what percentage by air?

Mr. GARRETT. I believe I testified to that earlier. The number of men transferred by air was far and away the predominant number. It was well in excess of 90 percent.

Senator BUMPERS. But you transferred 85 percent of the equipment and munitions?

Mr. GARRETT. Over 85 percent of the equipment.

Senator BUMPERS. Over 85 percent.

Mr. GARRETT. Yes, sir; approximately 94 percent of the people went by air. About 95 percent or 96 percent of the equipment went by sea. But I will get you the exact figures for the record.

[The information follows:]

Sealift provided 86 percent of dry cargo and 94 percent of total requirements (dry cargo and petroleum).

Senator BUMPERS. Admiral, last year I got $31 million in here for you to do a study.

Mr. Secretary, perhaps I should address this question to you, on the possible use of MLRS on shipboard. Now apparently the Navy does not want the money. I am going to try to save all the money we can. I am not going to try to force $31 million down your throat, but I am curious as to what the reticence of what seems to me like a really outstanding weapon to the possible application of that weapon on shipboard?

Mr. GARRETT. Senator, I would like, if I may, to take that question for the record. I have not familiarized myself with the issue of late. I will get back to you on that.

Senator BUMPERS. Please get back to me on that.

Mr. GARRETT. Yes, sir.

[The information follows:]

Although the Senate Appropriations Committee provided $31 million for the shipboard MLRS study, the appropriations conference did not provide specific funding for this study, allowing instead that Navy RDT&E resources may be obligated for an evaluation of the assault ballistic rocket system. We are currently examining the feasibility of adopting the MLRS concept to shipboard use, and will initiate further actions pending the outcome of our analysis.

Senator BUMPERS. As I say, I am not interested in throwing $31 million at a problem you do not see or one that you do not have on your priority list.

Now how much money are we going to save in 1992 by mothballing two battleships?

Mr. GARRETT. Essentially, we are going to save the O&M dollars and the MPN dollars. You save the dollars for approximately 1,500 crewmen and associated fuel costs, operating costs, and maintenance costs.

Senator BUMPERS. You do not have that in dollars?

Mr. GARRETT. I do not have it on the top of my head, but it is not insignificant in the context of O&M, or let us say, the relative operating costs.

Senator BUMPERS. It could approach close to $100 million, could it not?

Admiral?

Admiral KELSO. Yes; I think it will be in that range, Senator. The manpower costs will be more than that. The O&M costs to operate the ship for 1 year will be in that range.

Senator BUMPERS. Incidentally, Admiral, my objection to bringing the battleships out of mothballs was always the costs. I mean I had nothing against battleships, and they made a good platform for us with the cruise missiles over in the Persian Gulf, and nobody doubts that. But when you are paying 1,500-plus men, that is a very expensive ship to maintain.

Mr. GARRETT. I think the marines, with all due respect, Senator, would also hail the naval gunfire support that they got from both *Wisconsin* and *Missouri*.

Senator BUMPERS. Just one last question, Mr. Secretary, and really General Powell or Secretary Cheney are probably the more appropriate person or persons to address this question to, but if you know the answer to it, I am just curious. The Iraqis were supposed to have had 500,000 men in Kuwait and southern Iraq. I remember General Schwarzkopf said the gate is closed, there is no escape. We took 60,000 prisoners. I am assuming that 100,000 Iraqis were killed.

I am curious as to what happened with the other 340,000. Do you have any idea? Did they slip through?

Mr. GARRETT. I don't have the answer to that question. Over a long period of time I was receiving reports that there were a number of people who were not returning to their units. I do not think anyone will know with any degree of certainty exactly how many people were on the battlefield when the ground war started because of the fact that people were escaping at the same time, deserting their units, in addition to the numbers killed. I am not sure that we will ever have with a large degree of certainty an exact count on the number killed. I'm not sure that's even possible.

Senator BUMPERS. Well, General Schwarzkopf said that he thought the desertion rate was at least 30 percent, and I saw other estimates that it might be as high as 60 percent, which would certainly account for an awful lot.

Mr. GARRETT. Yes, sir; and that went on for a long period of time.

Senator BUMPERS. Staff has suggested that they are all Kuwaitis now. [Laughter.]

I have no further questions, Mr. Chairman.

Senator INOUYE. Thank you very much.

Secretary Garrett, Admiral Kelso, and General Gray, we thank you very much for your testimony and your responses, which were always candid, and oftentimes painful, but we are grateful. General Gray, we hope that we will see you around here for the next round of hearings, but if circumstances cause you to leave us, I know I convey this on behalf of the subcommittee, we wish you Godspeed in your future endeavors, sir.

General GRAY. Thank you very much, sir.

ADDITIONAL COMMITTEE QUESTIONS

[CLERK'S NOTE.—Additional questions submitted by subcommittee members, together with the Department's responses, will appear in the appendix portion of the hearings.]

SUBCOMMITTEE RECESS

Senator INOUYE. Gentlemen, we thank you very much.

The subcommittee will now stand in recess until Thursday, March 14, at 9 a.m., and we will reconvene in this room.

Mr. GARRETT. Thank you very much, Mr. Chairman.

[Whereupon, at 11:45 a.m., Tuesday, March 12, the subcommittee was recessed, to reconvene at 9 a.m., Thursday, March 14.]

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